National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

Canada

UNIVERSITY OF ALBERTA

PERCEPTION OF SOCIAL SUPPORT AMONG IMMIGRANT PUNJABI SIKH MOTHERS IN EDMONTON

By

THERESA NANKPI

©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements for the degree of **MASTER OF NURSING**.

FACULTY OF NURSING
Edmonton, Alberta
SPRING 1994

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file   Votre référence

Our file   Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-612-11308-6

Canada

UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: **Theresa Nankpi**

TITLE OF THESIS: **Perception of social support among immigrant Punjabi Sikh mothers in Edmonton**

DEGREE: **Master of Nursing**

YEAR THIS DEGREE GRANTED: **1994**

Permission is hereby granted to the University of Alberta Library to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly, or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided, neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever, without the author's prior written permission.

Ministry of Health
Post Office Box M. 44
Accra, Ghana, West Africa

April 22, 1994

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "PERCEPTION OF SOCIAL SUPPORT AMONG IMMIGRANT PUNJABI SIKH MOTHERS IN EDMONTON" submitted by THERESA NANKPI in partial fulfilment of the requirement for the degree of MASTER OF NURSING

Marilynn J Wood
(Supervisor) Marilynn J. Wood, DrPH, RN

Margaret J Harrison
Margaret J. Harrison, PhD, RN

M. Joyce Relyea
M. Joyce Relyea, MPH, RN

L. Laing
Lory M. Laing, PhD

April 15, 1994

DEDICATION

This work is dedicated to my three daughters, Noela Bekaar, Mildred Sangbeta, and Emelia Kamwinaa, who had to do without my presence for these two years. Without their understanding and support this would not have been possible.

ABSTRACT

The purpose of this study was to describe the relationship between social support and the health status of Punjabi Sikh immigrant mothers who have children under one year of age and live in Edmonton.

The study examined the women's perception of their health status. It described their social support networks and assessed their satisfaction with the support they received. It also examined the relationship between (a) the size of and (b) their satisfaction with that support and their perceived health. Fifty Punjabi mothers participated in the study. The Arizona Social Support Interview Schedule (ASSIS), Cantril's Self-Anchoring Striving Scale, and a demographic data sheet were used for data collection during interviews. Data were analyzed using analysis of variance and chi-square tests. The number of available network members ranged between 3 and 11. The number of network members utilized ranged between 3 and 10.

Results showed that immigrant Punjabi mothers are more likely to involve female Punjabi friends in their support networks. Respondents were "moderately" to "very satisfied" with their support. Findings demonstrate that a mother's available social network, her satisfaction with social support, the network size, and the age of her baby all contribute to the mothers' health and well-being.

The study provides some evidence for the importance of including friends as identified by mothers in the perinatal care of immigrant Sikh Punjabi women. Nurses may help to promote satisfaction of immigrant Punjabi Sikh mothers with their support by attracting friends of immigrant mothers in health education programs, and focusing on the behaviours of the mothers themselves.

ACKNOWLEDGEMENTS

The author would like to acknowledge the assistance of the Sikh community of Millwoods, and especially the fifty Punjabi Sikh mothers who participated in the study.

Funding for the study was provided by the Canadian International Development Agency (CIDA). I am grateful to the Government of Ghana's Ministry of Health, especially to Dr. Charlotte Gardiner. Dr. Samuel Adjei, Director of Primary Health Care, also involved me in research projects, encouraged me to pursue my graduate education, and helped me to procure the CIDA Scholarship to undertake my studies. I am also grateful to Ms. Sarah Abadoo and Mrs. Margaret Osei-Boateng, Department of Nursing, University of Ghana, for their encouragement.

I am grateful for my supervisor, Dr Wood,who gave me emotional support, academic guidance, and encouragement. I am especially grateful to Dr. M. J. Harrison, for her patience, tireless research assistance, support, suggestions, helpful comments, Dr. L. Laing and Professor J. Relyea contributed suggestions and valuable input. I gratefully acknowledge Dr. P. J. Brink, who also provided some of the impetus and assisted in the development of the project.

I cannot begin to thank every individual who has helped me in this endeavour. Several graduate students and university staff and faculty members assisted in a variety

of ways. The comments of fellow students during discussions at Research Seminars were important in the formative stages of the project.

Further, the author would like to acknowledge the vision and support of my friends whose interest and support provided some of the impetus and rationale for a study on social support. This final phase of the master's degree gave the author an opportunity to learn about people who have touched her life with love and hope. The actions of nursing colleagues, especially those at the West Jasper Place Health Centre, have inspired my inquiring mind by showing me what support means to the quality of life for a foreign student.

TABLE OF CONTENTS

Chapter 1

Introduction 1

Statement of the Problem 10

The Purpose of the Study 11

Objectives of the Study 11

Operational Definitions 12

Chapter 2

A Review of Social Support 13

Stress and the Need for Support Among Immigrant Mothers 13

Conceptual Issues of Social Support 16

The Relationship of Social Support to the Experience of Stress 19

Social Support Networks 24

Composition and Member Homogeneity 27

Network Size 28

Network Density 30

Intensity of the Network 31

Geographic Proximity 32

Negative Effect of the Social Network 32

Social Support and Postpartum Women 34

Instrumental Support 35

Emotional Support During the Postpartum Period 37

Postpartum Informational Support 38

Individual Differences in Needs for Social Support 39

Satisfaction With Support 42

Methods of Measuring Social Support 45
Conceptual Framework 50

Chapter 3

Life in Punjab **54**
The Land and the People 55
Economic Life 55
The People and Their Religion 56
Political Life 58
Kinship and Family Structure 59
Punjabis' Beliefs about Health and Illness . . 60
Beliefs about Pregnancy 62
Beliefs about Nutrition in Pregnancy 62
Beliefs about Activity/Exercise During Pregnancy 64
Beliefs about Labour and Delivery 64
Beliefs about the Postpartum Period 66

Chapter 4

Methodology **70**
The Sample 70
The Study Area 70
Procedure 71
Protection of Human Rights 72
Data Collection Instruments 74
Arizona Social Support Interview Schedule . . 74
Scoring of ASSIS 75
Reliability and Validity of the Original ASSIS 76
Revision of the ASSIS 79

Reliability and Validity of the Revised ASSIS 80

Pilot Test 80

The Cantril's Self-Anchoring Striving Scale (SASS) 82

Demographic Data 84

Data Collection Procedure 84

Data Analysis 86

Chapter 5

Findings **89**

Relationships Between Support Categories . . . 89

Description of the Sample 92

Immigration Information About the Respondents 92

Family-Related Information About the Respondents 93

Socio-Cultural Information About the Respondents 94

Child-Related Information About the Respondents 95

Social Support Network Members 95

Total Network Size 96

Available Network Members and the Type of Functional Support They Gave 97

Network Members Utilized for Type of Support . 99

Characteristics of Network Members 101

Satisfaction Scores for Type of Support Received 103

Total Satisfaction Scores of Support Received from Social Network Members . . 104

Relationship Between Social Support and Health Relationship Between Network Size and Perceived Health Status 105

Relationship Satisfaction with Support and Perceived Health Status 108

Chapter 6

Discussion and Conclusions 109

Description of the Participating Mothers . . . 110

Composition of Social Support Network 113

Health Status of Respondents 119

Relationships Between Network Size and . . . . 121 Perceived Health

Relationships Between Available Network Size and Perceived Health 121

Relationships Between Utilized Network Size and Perceived Health 123

Relationships Between Negative Aspects of Social Support and Health 123

Relationships Between Satisfaction With Social Support and Perceived Health Status 125

Significance of the Study 131

Recommendations for Further Research 132

Limitations of the Study 134

Summary and Conclusions 136

References 140

Appendices

Appendix A

Letter of Approval from the Heads of the Sikh Temple 157

Appendix B

Letter of Approval from the Nursing Ethics Review Committee 158

Appendix C

Cover Letter 159

Appendix D

Informed Consent 161

Appendix E

Arizona Social Support Interview Schedule Revised by Researcher 162

Appendix F

ASSIS Scoring Sheet 170

Appendix G

Cantril's Self-Anchoring Striving Scale . . . 171

Appendix H

Personal Data Interview Schedule 172

Appendix I

Permission to Use ASSIS: Barrera's Letter . . 175

LIST OF TABLES

Table **Page**

4-1 Split Half Reliability Test of the Revised ASSIS 82

4-2 Frequency Distribution of the Health Rating of Respondents 87

5-1 The Reliability Test of the Revised ASSIS (Six Categories) 90

5-2 The Reliability Test of the Revised ASSIS (Five Categories) 91

5-3 Frequency Distribution of Respondents' Total Network Size and Conflict 97

5-4 Available Network Members by Type of Support or Conflict (N=50) 98

5-5 Utilized Network Members by Type of Support or Conflict (N=50) 100

5-6 Frequency Distribution: Network Members' Relationship to the Respondents 101

5-7 Frequency Distribution of the Age of the Respondents' Network Members 102

5-8 Frequency Distribution: Ethnicity of Network Members 103

5-9 Total Satisfaction Scores 104

5-10 Relationship Between Respondents' Work Status and Their Perceived Health 106

5-11 Relationship Between Social Support Variables and Health Status 107

5-12 Comparison of Health Status of Groups 107

CHAPTER 1

INTRODUCTION

Childbirth and the adequate care of an infant are arduous tasks. They may become complicated when a woman has no support networks and is living in a different country from the one of origin. Apart from problems associated with childbirth, Aroian (1990) reports that immigrants are "usually confronted with major changes in life style and environment" (p. 5). They experience difficulties with adjustments, which result in higher rates of emotional distress. Studies suggest that the health of mothers may be adversely affected by the demands of their role (Aroian 1990; Pridham, 1987).

Social support affects a person's adaptability and adjustment to various stressful events, and buffers the impact of stress on physical and psychological health. Several findings are reported regarding the positive effects of social support in preventing the harmful effects of various stressful life situations, including bereavement, loss of job, marriage, birth of a child, divorce, immigration, illness, and ageing (Aroian, 1992; Cohen & Wills, 1985; Lin, Simeone, Ensel, & Kuo, 1978; Pridham, 1987; Scultz & Rau, 1985; Thoits, 1982; Turner, 1983). Social support has been found to prevent complications in people undergoing prolonged treatment such as haemodialysis (Simmons, Klein & Simmons, 1977; MacElveen, 1972), in heart transplant patients (Hammer, 1981) and others who suffer from physical disabilities. Social support has been found to improve the well-being of mentally disabled individuals and their relatives (Cohen & Mackay, 1984; Ratcliffe, Paul, & Hassan, 1978). In child related situations, social support has been found to improve pregnancy outcomes (Cronenwett, 1985a; Gjerdingen, Froberg, & Fontaine, 1991; Norbeck & Tilden, 1983; Nuckolls, Cassel & Kaplan, 1972), and contribute to successful parenting (Mercer, 1981a, 1981b; Mclanahan & Adams, 1987; Richardson & Kagan, 1979). Apparently, it can reduce the incidence of post partum depression (Stemp, Turner, & Noh, 1986; O, Hara, 1986, Paykel, Emms, Fletcher & Rassaby, 1980; Posner, Uterman, & Williams, 1985), and the incidence of relapses of schizophrenic mothers (Israel, 1978). Also, social support has been associated with successful breast feeding (Abriola, 1992; Houston, 1981) and good health behaviours among mothers (Cronenwett, 1985a, Muhlenkamp, Sayles, 1986; Roberts, 1988).

Initially, research pertaining to the beneficial effects of social support was linked to psychological and physical health outcomes (House, Robbins, & Metzner, 1982). Epidemiological studies have shown that social support is related to mortality. In these studies, mortality from all causes was demonstrated to be greater among persons with lower levels of social support (Berkman & Syme, 1979; House, Robbins, & Metzner, 1982). Also, prospective studies related to mental health outcomes have indicated a positive relationship between social support and mental health (Billing & Moos, 1982; Henderson, Byrne & Duncun-Jones, 1981; Turner, 1981).

The mechanism through which social support is related to well-being, has been found to be associated with an efficient social integration. Studies have demonstrated that a lack of positive relationships may lead to negative psychological states such as anxiety or depression. In turn, these psychological states ultimately influence physical health, either through a direct effect upon the physiological processes or through a person's attitude that influences a person's susceptibility to disease (Billing & Moos, 1982; Henderson, Byrne & Duncun-Jones, 1981; Turner, 1981).

A general beneficial effect of social support is related to social networks. A positive relationship has been found between a large social network and the well-being of a person as it provides stability in a person's life situation, as well as a recognition of self-worth (Cassel, 1981; Hammer, 1981; Thoits, 1983). Integration in a social network has also been suggested as a means to help one avoid negative experiences that would otherwise predispose a person to a physical or psychological disorder (Cassel, 1981; Hammer, 1981; Thoits, 1983). A supportive social support network has been demonstrated to influence health-related behaviour patterns such as cigarette smoking, alcohol use or the seeking of medical help (Krantz, Grungerg, & Baum, 1985; Wills, 1983).

Social support was found to operate by enabling an individual to express their feelings and personal concerns. It can also be a source of information, as well as, provide material aid and feedback about maternal performance (Barrera, 1981; Caplan, 1974; House, 1981). Physical assistance in the form of services is also helpful to a mother's adaptation in her early stages after childbirth (Barrera, 1981; Caplan, 1974). Over all it is said, social support provides refuge from stressful situations (Cobb, 1976; Kahn & Antonucci, 1980).

Theoretically, social support could affect the stress associated with immigration, childbirth, and parenting in two ways. First, it may reduce the severity of stress related to immigration (Aroian, 1992). Secondly, the detrimental effects of stress related to childbearing may be reduced.

One resource that has received substantial attention is the social support provided by family, friends, and other relationships (Barrera, 1981; Caplan, 1974; Cronenwett, 1985b; Pridham, 1988). However, some networks were reported to be more helpful than others in assisting persons to deal with crises (Aroian, 1992; Cassel, 1976; Israel, 1981; Pridham, 1987; Vaux, Burda & Stewart, 1986). Individuals who are of a similar origin and speak the same language or dialect (coethnics) tend to contribute more to psychological health by buffering or preventing the stress associated with immigration (Aroian, 1992). Cronenwett (1985a), reported that the association between the satisfaction with support and health was dependent upon the specific life context and the type of support measured.

However, some of the research findings have been proven to be invalid due to flawed methodological proceedings and the use of ambiguous conceptualization of social support. At present, the concept of social support is considered multi-dimensional, as it is still defined and measured by researchers in many different ways (Cohen & Wills 1985; House 1981; Thoits, 1982; Veiel, 1985). The two main measures of social support reported are: (a) assessment of social support network structure versus social support function, and (b) specificity versus the global nature of the scale. Structural measures are those that describe the existence of relationships. Functional measures are those that directly assess the extent to which these relationships may provide particular functions. Specificity indicates whether a measure assesses a specific structure/function or combines a number of structural measures into an undifferentiated global index. Global functional measures combine functional indexes such as informational, instrumental, and esteem support into a single, undifferentiated measure (Cohen & Wills, 1985).

The implications of specific versus global measurements are different for "direct effect" and the "buffering" models. For tests of direct effects, global structural measures are predicted to be more important in showing a strong and direct effect as they tend to record a wider variety of stable connections (Cohen & Wills, 1985). Since the structural measures only record one relationship, they exhibit a low level of reliability in relation to social integration, and are thus found to be weak and inconsistent when attempting to produce main effects (Cohen & Wills, 1985). The buffering effect of the functional measures is observed only when a functional measure is suitably matched to the stressful events being examined. This implies that only specific and appropriate functional measures will show any buffering effects. The global or undifferentiated functional measures will be less successful because the composite index may disguise the relevant function (Cohen & Wills, 1985).

Although it is well known that social support helps individuals in times of stress, some situational factors may affect the availability of such support (Power & Park, 1984; Vaux et al., 1986). For example, immigration may limit the possibility of social support in a foreign country. Such immigrants may suffer from the harmful effects of stress if a similar network of social support is not available in their host countries (Aroian, 1992).

There is also evidence that many factors impinge upon the use of social support by mothers (Cronenwett, 1985b; Pridham, 1988). For example, circumstances or life events, such as immigration and childbirth, may affect the composition of social networks; individual characteristics may also influence the formation of an individual's social network, and his/her need for and ability to seek social support from these networks (Cronenwett, 1985b).

Immigration may affect the availability of social networks, as immigrants tend to leave their networks in their country of origin (Aroian, 1990). The formation of a new social network within the host country may prove to be difficult due to the existing cultural differences (Lew & Mattson, 1992). Ethnic groups have culturally-based beliefs and practices related to the source type and period of support for infant care (Lew & Mattson, 1992). Members of diverse cultures do vary in their attitudes toward support networks and with respect to the type of support available (Clark, 1984).

Having a child may also influence the formation of an individual's social network and his/her need for social support. Cronenwett (1985b) states that access to, the development of, and use of social support, as well as composition of social network may be influenced by demographic variables such as marital status, sex, age, and educational background.

The need for social support may be influenced by factors such as personal attributes and the timing of the support (Aroian, 1992; Brownell & Shumaker, 1985; Jacobson, 1986; Norbeck, 1985). For example, parenthood will affect both the satisfaction with social support and the properties underlying the support network utilities (Cronenwett, 1985b). Cronenwett (1985b) states that satisfaction with the parenting role will affect the need for support following childbirth.

Studies suggest that some social affiliations do generate stress as well (Aroian, 1992; Barrera, 1981; Majewski, 1986; Tilden & Gaylen, 1987; Rooks, 1984). For example, source, content, and timing of support (Jacobson, 1986), as well as appropriateness of support have been found to create strenuous relationships for certain populations (Aroian, 1992; Barrera, 1981; Tilden & Gaylen, 1987).

Circumstances may also determine whether social support promotes health or is harmful (Aaronson, 1989; Cronenwett, 1985a). Aroian (1992) reports an inverse relationship between size of immigrant group and psychiatric hospital admission rates. One could infer from her findings that immigrants of a similar ethnic origin facilitate other immigrants' adaptation.

Despite the benefits of social support, little attention has been paid to an examination of its availability to immigrants in Canada. Only a few studies have investigated social support of immigrants in the United States of America (Lantican & Corona, 1992). These studies have identified people of a similar ethnic origin as the main source of social support for immigrants from Poland, Filipines, Greece, and Haiti (DeSantis, 1989; Aroian, 1992). However, the researcher found no comparable studies in Canada.

Literature about the post-partum period has focused on adaptation (transition to parenthood), concerns of new mothers, maternal-infant attachments, and mothers' satisfaction with support groups (Abriola, 1990; Mercer, 1986; Sheehan, 1981; Sumner & Fritsch, 1977). Very little is known about the potential for social support to moderate the stress of postpartum for the immigration. The author found no study that explored the relationship between an immigrant's satisfaction with support from the social support network members and his/her health in the host country.

Thus, there are some gaps in the research on immigrants' health with respect to social support network structure, and their satisfaction with the support they received from social support networks and the support available to them. There was no information in the literature concerning the health of immigrant mothers with respect to their social support. Therefore, there is the need for additional research in this area.

Statement of the Problem

As Canada becomes progressively multicultural, nurses need to become aware of their own ethnocentrism. In areas where the population is made up of persons from diverse cultural backgrounds, nurses must know and understand the beliefs, attitudes, and perceptions of their clients they serve. Nurses need to appreciate the clients' circumstances from the clients' viewpoint (Martin & Henry, 1989). Thus, nurses need to modify their services to ensure that social support is available to their clients. In order to achieve this goal, nurses should be informed about their clients' culture, so that they can provide culturally sensitive, appropriate, and acceptable care (Leininger, 1985). If social support reduces stress and promotes health of immigrant mothers, care providers should ensure that mothers are able to obtain the type of support they require. This will facilitate the attainment of culturally-sensitive care which, in turn, will promote a mother's physical and psychological health in their host country.

Knowledge of network characteristics may help to identify the support resources. It is hoped that this study of immigrant mothers will contribute to nurses' understanding of the necessary components of the social networks of immigrant women in order to promote the attainment of better health status of immigrant mothers following childbirth.

The Purpose of the Study

The purpose of this study is to describe the relationship between social support and the health status of Punjabi Sikh immigrant mothers with children under one year of age and living in Edmonton. This cross-sectional non-experimental study focused on the following objectives.

Objectives of the Study

The study sought to:

(1) Describe the women's perception of their health status,

(2) Describe the size and composition of social support networks (available, utilized, and conflicted),

(3) Assess the satisfaction with social support received by immigrant Punjabi Sikh mothers,

(4) Examine the relationship between
    (a) the size of the social support networks and perceived health, and
    (b) satisfaction with social support and perceived health.

Operational Definitions

(1) Health status: How well the mother says she feels at a particular point in time, as measured by the Cantril Self-Anchoring Striving Scale.

(2) Satisfaction with social support: The total satisfaction score for help or assistance received from people identified by the mother, as measured by the Arizona Social Support Interview Schedule (ASSIS).

(3) Social network also known as social support network: The people identified by the mother as being available or utilized to provide at least one of the support functions, as measured by the Arizona Social Support Interview Schedule (ASSIS).

CHAPTER TWO

A REVIEW OF SOCIAL SUPPORT

Literature about the post-partum period has focused on maternal adaptation, maternal experience, social support relating to networks, type of support, and transition to parenthood. The literature for this study focuses on nine areas: stress and need for support for mothers, conceptual issues about social support, the relationship of social support to the experience of stress, social support networks, negative effect of the social support network, social support and postpartum women, emotional support during postpartum period, postpartum informational support, individual differences in needs for social support, satisfaction with social support, and methods of measuring social support.

Stress and the Need for Support Among Immigrant Mothers

Immigration (Aroian, 1990) and childbirth are sources of stress (Mercer, 1986) and require adaptation for mothers. The underlying assumption is that stress has harmful effects on health, and social support is an important mediator of stress. To understand the relationship between stress and social support, it is important to understand the theoretical perspectives of stress and social support.

The literature about stress is beset with conceptual ambiguities. Hinkle (1987), for example, notes that "there is still today no generally agreed upon definition of stress that allows anyone to determine precisely when the state exists and classify it as present or absent...." (p. 561). In the social support literature, stress has been conceptualized as a function of the interaction between the individual and the environment. House and Wells (1978) argue that the perception of stress depends upon the interplay between situational and individual factors.

Specifically, individuals will perceive stress when the environmental demands exceed their abilities to meet those demands, or when the environment is unable to fulfil strong individual needs or wants. In this context, stress can be perceived as a conflict between environmental demands and limited coping abilities. Similarly, stress can be conceived as a conflict between individual wants or needs and available resources (Van Harrison, 1985).

Although stress is ultimately in the eye of the beholder, on a normative level some life situations pose a greater potential for stress than others (Lazarus, 1981; House & Wells, 1978). For example, immigration has been found to be a significant source of stress. More recently, studies have demonstrated the complex nature of the immigration experience (Aroian, 1990; Meleis, Lipson, & Paul, 1990) and the role of acculturation in the mental health of immigrant women (Pearson, 1979). In light of the detrimental effects of stress, immigrants require support to enable them to resettle and adapt to their new environment (Aroian, 1990).

With respect to stress in mothers, the postpartum period is considered to be another stage in a continuing series of normal developmental steps requiring adaptations (Unterman, Posner, & Williams, 1990). The birth of a baby is a major life change from which full recovery can take more than six months (Harrison & Hicks, 1983). Most women experience a decreased well-being during the first post-natal year (Miller & Sollie, 1980); indeed, in some women it leads to postpartum depression (Unterman, Posner, & Williams, 1990). Mothers often encounter many opposing feelings such as joy, anxiety, confusion, a sense of being loved, helplessness, fear, despondency, weariness, remorse, and overwhelmed by their duties in their adjustment (Russel, 1974).

Childbirth is a challenging and vulnerable period for women. For those living in a foreign country, these challenges are compounded by changes in their personal networks and social supports (Brown & Harris, 1978; Oakley, 1979; Turner & Noh, 1983). Having a child away from one's home country may cause changes to both the properties of a person's network and the perceived social support, and this support must be sought elsewhere.

Conceptual Issues of Social Support

In attempting to explain why some people pass through periods of life stress successfully, research has begun to focus on potential factors that may mediate the stressful life-illness relationship. Social support appears to be a variable that affects a person's adaptability and adjustment to various stressful events (Norbeck, 1982; Thoits, 1982; Turner, 1983). At present, the concept of social support is considered multi-dimensional. There is diversity in the definition of social support in the literature (Cohen & Wills 1985; House 1981; Thoits, 1982; Veiel, 1985).

Thoits (1982) argues that the amount of support, the type of support (e.g. socio-emotional and instrumental), and the source of support (e.g. spouse, friend, family, coworkers) are all important dimensions. Cohen and Wills (1985) offer a similar typology. According to their conceptualization, social resource(s) may provide any or all of the following social support functions: esteem support, informational support, social companionship, and instrumental support.

Cobb (1976) is one who has formulated a more explicit and precise definition of social support. He suggests that support be considered as information belonging to one or more of the following classes: (1) information leading the person to believe that he/she is cared for and loved, (2) information leading the person to believe that he/she is esteemed and valued, and (3) information leading subjects to believe that they belong to a network of communication and mutual obligation. Cobb calls these three aspects of social support emotional support, esteemed support, and network support, respectively. As implied by his paper, social support is derived through interaction with others, but particularly with family and friends. Cobb's definition allows the researcher to operationalize and examine various types and sources of potential social support.

House (1981) describes social support as an interpersonal transaction involving one or more of the following functions: (1) emotional concern (liking, love, empathy), (2) instrumental aid (goods or services), (3) information about the environment, and (4) appraisal (information relevant to self-evaluation). House's definition of support appears to include aspects of Cobb's three forms of support. However, his approach focuses on the relative importance of the different sources of support. As such, he strongly recommends that any assessment of support should consider both informal sources (e.g. family, friends, co-workers) and more formal sources of support (e.g. professionals and welfare groups).

Furthermore, House's definition of social support directs the researcher's attention to various types and sources of support that would affect stress, health, and the relationship between them. To this extent, one could translate House's definition into operational measures for research. For example, to determine how much informational support an individual gets from his or her family/friends, one might ask, "How much are your family and friends willing to talk over your problems with you?" Or, to determine how much instrumental support an individual gets from his or her friends, one might ask, "If you were having financial difficulties, to what extent would your friends be willing to help you pay your bills?" (House, 1981. p. 96).

Adding to the components of social support, Cronenwett (1985b) proposed a model adapted from the literature on stress and social support that depicted relationships among network structure, social support, and psychological responses to parenthood. The basic tenets of this model are, individual background factors and social and psychological factors.

Despite the lack of consensus in conceptualizing social support, the following attributes could be considered as pertinent to understanding the concept as it relates to stress associated with immigration and childbirth: (1) source of support, which includes informal sources (such as family, friends, and co-workers) and formal sources (such as professionals); and (2) support functions such as emotional support (love and affection), instrumental support (goods and services), social companionship, informational support (about the environment, appraisal, and feedback). The satisfaction with support is likely to be influenced by individual characteristics, such as gender, educational level, and stage of development (Vaux et al., 1986; Cronenwett, 1985b). Other attributes may include network characteristics (such as composition, size, density, intensity, and geographic proximity or dispersion). The theoretical explanation for a direct and buffering hypothesis is also important to understanding the effects of social support on the health and well-being of mothers.

The Relationship of Social Support to the Experience of Stress

The intervention of social support in the stress can also be conceptualized in a number of different ways. The basic model of life-events stressors leads to perceptions of stress which, in turn, may lead to both short-term and long-term health consequences (Schaefer, Coyne & Lazarus, 1981; Wheaton, 1985). In attempting to understand the role of social support in the relationship between stressful life events and health/illness, two significant hypotheses have emerged: the "buffering" hypothesis and the "direct effect" hypothesis (Wheaton, 1985).

The "buffering" hypothesis suggests that social support may serve as a protective factor, by buffering or cushioning individuals from the effects of stress on health outcomes (Cobb, 1976, Cohen & Mackay, 1984; Fiore, Becker & Coppel, 1983). The "direct effect" hypothesis proposes that social support may impact upon health by providing emotional comfort which reduces the effects of symptoms and promotes recovery (Turner, 1983).

The concept of buffering maintains that social support is related to health status only at high levels of stress (Cassel & Kaplan, 1972; Cobb, 1976; Cohen & Wills, 1985; Husaini, Neff, Newbrough & Moore, 1982). In the absence of stress, social support will have no influence on the level of health. As stress increases, the beneficial effects of support will become increasingly apparent: individuals with high levels of support will be better able to cope with major life changes, whereas those with no or low levels of support may be more vulnerable to life events (Norbeck & Tilden, 1983; Nuckolls, Cassel, & Caplan, 1972).

In their discussion of the interaction of social support with environmental stress, Caplan (1974), Cobb (1976) and Fiore et al., 1983) consider mechanisms by which social support acts to prevent the harmful effects of crises and change. Implicit to Cobb's work is the assumption that coping can modify the relationship between the stress of life events and health status. That is, the extent to which life events adversely affect health depends on the success of the coping strategy (Heller & Swindle, 1983. To this extent, Cobb (1976) and Caplan (1974) clearly emphasize that social support, by contributing to and augmenting an individual's ability to cope, attenuates some of the harmful effects of life-events on well-being. Further, social support is considered to be an important resource, protecting mothers from the harmful effects of stress (Kronenberger & Thompson, 1992, Norbeck & Tilden, 1983; Turner, 1983; Walker, 1989a, 1989b, 1992).

The buffering model proposes that those mothers who have high levels of support resources will be less likely to perceive stress than those mothers with low levels of support resources (Koeske & Koeske, 1990; Walker, 1989a, 1989b). Through the provision of contextual information and/or esteem support, social support resources may make it less likely that an individual will label a given life situation as threatening, hence making it less likely that the mother will perceive life-events as stressful (Walker, McBride, & Vachon, 1977; Wells, 1982; Wheaton, 1985). The implication is that social support, which is an aspect of social integration, increases an individual's coping ability. Hence, social support may play a mediating role between life events and illnesses.

The "direct effect" hypothesis proposes that there is a relationship between life events, social support, and psycho-sociological illness. "Direct effect" changes the amount of stress that the individual perceives by affecting his/her well-being. That is, social support has a positive influence on health regardless of the presence of stress. For example, Aaronson (1989) established that satisfaction with support received social support networks influenced pregnant women's compliance with approved health behaviour such as abstinence from cigarette smoking, caffeine, and alcohol.

Evidently, there are rather mixed findings regarding the role of social support in the relationship between stressful life events and psychological well-being and obstetrical complications (Norbeck & Tilden, 1983). Norbeck and Tilden found that women with high stress levels before pregnancy and low social support during pregnancy had the highest gestational complications. They also found that women with low stress levels with low support had a high rate of labour and delivery complications.

While some studies demonstrate only a direct effect of social support on well-being (Andrews, Tennant, Hewson & Villant, 1978; Lin, Simeon, Ensel, & Kou, 1978; Belle, 1982), others suggest that social support mediates the relationship between life events and well-being (Nuckolls, Cassel, & Caplan, 1972). The conflicting findings concerning the effects of social support in terms of relationship with stressful life events and illness could be attributed to sample properties, different analytic approaches, or a different assessment of social support.

Some studies have also questioned whether social support causes good health or good health makes a person more likely to obtain or experience support (Andrews, Tennant, Hewson, & Vaillant, 1978; Turner, 1981). Turner (1981) suggests that the availability and use of social support, and the satisfaction experienced as a result, have consequences on one's psychological or physical well-being. Furthermore, one's psychological status or physical condition may affect the availability of social support and one's tendency to experience that support (Walker, 1989).

One final and related issue is whether stressful life events are causally associated with social support. Under various types of life events, the type and amount of support may change (Casper & Hogan, 1990; Cronenwett, 1985b; Thoits, 1982). In this sense, life events can be causal factors, causing either increases or decreases in social support (Turner & Noh, 1983). Social support, therefore, should not be regarded to be static (Thoits, 1982).

The foregoing viewpoints emphasize the multidimensional character of support by stressing three important dimensions of the concept: sources of support, types of support, and satisfaction with support. The structure of the social network may also affect the flow of supportive resources to an individual (Hammer, 1981; Walker, MacBride, & Vachon, 1977; Hall & Wellman, 1985). Structural differences in the form of the social network (e.g. size, and density) have been found to determine different access to social support (Eckenrode & Gore, 1981; Hall et al, 1985).

Social Support Networks

One major issue in the assessment of social support is the social network. Social network refers to the structural aspects of social support: size, network diversity and connectedness (Kenneth, 1989). Barrera (1981) and Caplan (1974) believe that people must have connections with other people in order to receive social support. In this regard, structural characteristics become an important variable of positive social support outcome.

As part of his conceptualization of social support, Kahn & Antonucci (1980) denotes the social support network as the convoy through which the support is provided. The convoy is viewed as containing individuals that provide for the giving and receiving of support (Kahn et al, 1980). There is also some indication that there are differences in the social resources that are most helpful during the course of coping and adjusting to life transition such as parenthood (Casper & Hogan, 1990; Cronenwett, 1985b; Hirsch, 1979; Lantican & Corona, 1992). For example, Lantican and Corona (1992) note that there are some beneficial child and parenting outcomes related to support sources such as friends, family and the general community. Roberts (1988) notes that the social network defines values and beliefs; and influences the stress level of the individual. The social network also influences the person's psychological and physical well-being through the provision of tangible and emotional support (Hirsch, 1979; Keenan, 1989; Mitchell & Trickett, 1980).

With respect to the source of support (social networks), some studies have found that different sources of social support are important in different situations. For example, some researchers have suggested that social support would likely to act as a stress buffer when it matches the specific needs elicited by the stressor (Wills, 1985; Cohen & Wills, 1985). The match suggested by Wills (1985) proposes that " buffering effects depend on the relationship between the specific needs evoked by a particular stressor and the function provided by the network member" p. 77. Specific sources of support might be more able to meet the support functions elicited by the situation. Support from a family member might better match the needs elicited from childbirth than sources of support outside the family. This implies that specific maternal-related problems would be more effectively buffered by maternal-related sources of support. However, Wells (1985) argues that sources of support outside the stress-related area may provide an important cognitive context in which experiences in the area of need are appraised. It is likely therefore, that both maternal and non-maternal sources of support are able to provide some of the functions (e.g esteem support, informational support, social companionship, and/or physical assistance) needed to reduce the effects of child-related stress. Cohen and Wills (1985) also argue that physical assistance will be effective only when it closely matches the needs elicited by the situation.

From the foregoing arguments, whether or not parenting or non-parenting sources of support operate as effective maternal stress buffers can be assumed to depend upon the match between the support functions offered and the needs elicited by the parenting-related stress.

With respect to the source of support to meet immigrants' needs, ethnic ties were found to be an indirect source of economic assistance, emotional support, preferential job hiring, and social integration (Pearson, 1979). Pearson (1979) reports that immigrants are more likely to feel comfortable with coethnics. People who are bicultural, such as coethnics from earlier waves of immigration or people born in the country of resettlement, but to immigrant parents, were found to be of great support because they bridged the cultural gaps between the original and resettlement country (Aroian, 1992).

Although these studies focus on immigrants to the United States, their findings may be related to the Punjabi Sikh women in Edmonton who may find support from their coethnics more helpful than that from other main stream Canadians.

In addition to the description of the content and function of social support networks, Walker, MacBride, and

Vachon (1977) and Kenneth (1989) suggest that the network characteristics are relevant. The network characteristics that should be considered for meaningful interpersonal transactions are the composition and homogeneity of membership, size, relationship (density), strength of ties (intensity), and the geographic dispersion (geographic proximity) of membership. Each of these characteristics will be discussed.

Composition and Member Homogeneity

Network composition refers to the percentage of people that the mother named as involved with her and the baby, and the kin (relatives, children, siblings) and non-kin members (friends, neighbours, coworkers, and other acquaintances) with whom she interacts. Homogeneity refers to similarities between the members (Kenneth, 1989). Kenneth, (1989), for example, found that family-kin ties were most useful for long-term commitments, particularly those relating to the provision of material, instrumental, and emotional support. The author also showed that non-kin ties yielded positive health outcomes and are equally important sources of support. For example, she reported that the mother's relationships with friends, neighbours, and kin influenced mothers' role functioning through access to emotional support, material assistance, provision of childbearing information, and availability of role models (Kenneth, 1989).

When she examined the network structure, social support and psychological outcomes of pregnancy among 50 couples, Cronenwett (1985b) also found that relatives predominated in the social networks. A breakdown of her findings shows that women received emotional support from friends. Neighbours helped with urgent tasks, such as emergency rides to the hospital. Friendship groups, neighbourhood groups, or work groups were found to provide different and supplemental resources, as well. Kenneth (1989) noted that the networks of single mothers were largely composed of friends rather than relatives, neighbours, and work associates. In contrast, neighbours were the most important source of support. Friendship groups, based on similarities of age, sex, and the stage of the life cycle were very useful in dealing with issues on customs and values.

Network Size

Network size refers to the number of people who the mother named as being involved with the baby, and with whom she maintained social contact (Lenz, Parks, Jenkins & Jarret, 1986). Network size has been found to have a significant positive effect on life satisfaction and psychological well-being. Network members were reported to have provided encouragement, cognitive guidance, and socialization, and to have promoted positive health behaviours (Cronenwett, 1985a). Studies (Kenneth, 1989; Richardson & Kagan, 1979, Sokolovsky & Cohen, 1978), reported better psychological outcomes among couples whose network were larger and more varied in membership and kinds of support. Sokolovsky and Cohen (1978) reported that size and density were positively associated with mental health status when she compared diagnosed schizophrenics with non psychotic populations. In another study, Paykel, Emms, Fletcher, and Rassaby (1980) also found a relationship between postpartum depression and fewer confidants in a study of 120 English women who were interviewed approximately six weeks postpartum.

Furthermore, in a related study on the impact that immigrants' supportive relationships had upon their health, an inverse relationship was observed between the size of immigrant group and psychiatric hospital admission rates (Aroian, 1992). Having more contact with a larger number of coethnics was assumed to facilitate immigrants' adaptation and contributes to psychological health by buffering or preventing the stress associated with immigration (Aroian, 1992). Although this study was related to Polish immigrants it may also be applicable to the Punjabi Sikh mothers.

Network Density

Network density refers to the strength of ties, the degree of intimacy or closeness of the relationship, and whether it is an immediate or extended family member, a friend or acquaintance, or a professional or paid source of help (Lenz et al., 1986). Some studies (Grossman, Eichler,& Winckoff, Anzalones, Gof, Seyeff & Sarent, 1980) indicate that women who were more content with their marriages indicated fewer complications during pregnancy and better health status at child birth and at one year postpartum. In addition, Socolovky & Cohen (1978) reported a correlation of low density with re-hospitalization of schizophrenics. Furthermore, Richardson & Kagan (1979) reported that mothers expressed greater satisfaction with a network that was more dense. In their college-educated sample, friends in the network impacted on outcomes more positively than persons in other categories. Consequently, a less dense network does not help the individual in her transition to new social roles.

However, other studies have presented complex and confusing patterns of results about the density of network (Hirsch, 1981; Walker, McBride & Vachon, 1977). For example, Hirsch (1981) reported that lower social density is associated with more perceived support among women undergoing major life changes.

Walker, et. al., (1977) noted that during major life changes a small dense network restricts the individual to limited expectations, information, and social contacts thus increasing their perception of support. However, Walker and associates failed to specify the limited areas on which they based their argument.

Intensity of the Network

Intensity refers to the frequency of contact with the support recipient and the number of support activities performed by network members (Lenz, et al., 1986). Intensity has been identified as an important factor affecting the quality of social support (Barrera, 1981; Caplan, 1974). Lenz et al. (1986) found that the size of the network was negatively related to the intensity and the helpfulness of the support that was provided to mothers six months after childbirth. Small support networks were composed of higher proportions of maternal kin who provided many support services frequently. Instrumental support which was also perceived as helpful was provided by small networks and by persons intensively involved in providing assistance with the infant, although helpfulness was not related to the composition of network kinship (Lenz, et al., 1986).

Geographical Proximity

Geographical proximity or dispersion refers to the distance between people and their support network members. The accessibility of the resources to the recipient is also important. Access to support from a parent's social network has a positive effect on physical and psychological outcomes of the postpartum period (Eckenrode and Gore, 1981; House, 1981).

Negative Effect of the Social Network

Social networks have not only positive effects but also negative impacts on the recipients. Negative effects of the social network are defined as the amount of conflict or stress that may be brought about through interaction with members of the social network (Barrera, 1981). The social support literature in recent decades states that network members who provide social support may at the same time precipitate stress for the support recipient (Barrera, 1981; Belle, 1982; Roberts, 1988). A few researchers have measured the dysfunctional aspect of social ties (Barrera, 1981; Lin, Dean & Ensel, 1981; Starker, 1986). For example, Starker has cited loss of self-esteem as a result of a patient's dependency on others. In a study on social networks, support satisfaction, and support needs of 86 pregnant adolescents, Barrera (1981) reported both stress and support among the network members.

Belle (1982) noted that the greater the network size and the closer the proximity of the network to the mothers with young children in her study sample, the greater the degree of network stress for the mothers. Conflict can also exist in the social networks of immigrants. Conflict was identified among people from different waves or generations in the resettlement country, due to different rates and variations of ethnic change (Baskauskas, 1981; Moontero, 1981 cited by Aroian, 1991).

Given the stressful experiences of Polish immigrants, Aroian (1992) investigated their source of support and found that, although coethnic groups were the major source of support, they were also a source of stress to the immigrants. Evidently, viewing ties based on support alone precludes the complex nature of social interactions. It is only when non-recognition of the supportive interactions are addressed that a more comprehensive view of available social support can be appreciated (Starker, 1986). Although some writers noted that social relationships do have negative effects, the definition and assessment of social support of mothers tended to focus only on the positive aspect of support (Barrera, 1981; Kenneth, 1989), hence the need for measures of the negative aspects as well.

Network studies extend the focus beyond an examination of the effects (direct or buffering) of supportive resources on health and well-being to an exploration of the availability of supportive resources. The network approach also offers an effective way to study how support is perceived and accessed by receivers from specific sources. Given this additional element, one could conclude that a more adequate conception and measure of support will not only consider the nature, type, amount, and degree of support, but also the structure of the support system. Knowledge about availability, satisfaction with support, and the ways in which socio-cultural norms and structural characteristics of networks mobilize or constrain the provision of social support between network members, can help to address concerns described earlier about the nature of social support and how it works.

Social Support and Postpartum Women

Social support has been found to positively relate to mothers' mental and physical health around the time of childbirth (Gjerdingen, Froberg, & Fontaine, 1991). Social support has also been studied in the postpartum period and within the first year after delivery (Cronenwett, 1980; Lenz, Parks, Jenkins, & Jarret, 1986; Pridham, Egan, Chang, & Hansen, 1986; Stemp, Turner, & Noh, 1986; Turner & Avison, 1985; Turner & Noh, 1983; & 1986; Wandersman, 1980; Wandersman, Wandersman, & Kahn, 1980). Some evidence suggests that immigrant women experience varying degrees of stress during the postpartum period (Lantican and Corona, 1992). To cope with the stress, these mothers avail themselves of various types of support which are described below.

Instrumental Support

Instrumental support is the provision of material assistance (such as money or housing) and needed services to assist with parenting (such as baby sitting and feeding) (Barrera, 1981). The instrumental support network includes all those people named by the mother as being involved with both the mother and baby (Barrera, 1981). Instrumental support may help reduce stress by providing the recipient with increased time for such activities as relaxation or entertainment (Barrera, 1981).

Studies on social support in the postpartum period have focused on emotional and tangible/instrumental support provided by the spouse and others (Frate, O'Hara, 1983; Lenz, 1986; O'Hara, 1986). In some cases, the mere presence of others or some report of their supportiveness forms the only measure of social support (Aaronson, 1989). Brownell et al. (1985) believe that clearer specifications of the role played by the behaviour of the persons in the social network are needed. Cohen, for example, complains about the small degree of emphasis on what social systems "actually do, how, and with what results" (Starker, 1986, p.468).

Mothers of very young babies often feel deprived of sleep, and lacking in time to meet the needs of other family members, or to satisfy their own interests and needs. For reasons such as these, support with household and infant-care tasks is likely to be viewed by mothers as indispensable during the puerperium. Help with household tasks and infant care may give a mother respite from intense focus on the infant, help her in renewing her mental and physical energy, and in gaining perspective concerning her maternal role with the child (Pridman, Zavoral, 1988).

Pridham & Zavoral (1988) reported that help with unspecified tasks was the most common type of social support received by 86 percent of the mothers. They also reported that spouses were most helpful with day-to-day infant care. Kronenberger & Thompson (1992) reported that infant care by the woman's mother or mother-in-law was the most helpful for mothers whose babies had spinal bifida. Help with household and infant-care tasks was most likely to be provided by informal sources close to or within the family, unless the family could afford to hire help and chose to do so (Pridham & Zavoral, 1988). In addition, the general helpfulness of the baby's father (Boyce, Schaefer, Uitti, 1985), the husband's help with child care (Feggeter, Cooper, Gath, 1981) and the husband's help with housework or the division of labour between the spouses (Frate, Cowen, Rutledge & Glasser, 1979; Grossman, Eichler & Einickoff, 1980; Paykel, et al., 1980) are equally related to, and crucial to women's postpartum well-being.

However, some studies revealed conflicting results. Three groups of researchers who looked at the tangible support provided by family and friends did not find this type of support to be significantly related to mothers' well-being (O'Hara, Rehm & Cambell, 1983; Boyce, et al., 1985; Lenz, et al., 1986). These discrepancies could be attributed to methodological flaws. Most of the investigations about postpartum tangible support were conducted with relatively small convenience samples (Paykel, et al., 1980; Boyce, Schaefer & Uitii, 1985; Frate, Cowen, Rutledge, Glasser, 1979; Entwisle & Doering, 1981; Lenz, et al., 1986). Nonetheless, two of the studies used case-control designs and moderate sample sizes (N=142 and N=153) to demonstrate a significant relationship between mothers' mental health and the tangible support received from husbands and others in general (Gordon & Gordon, 1965).

Emotional Support During the Postpartum Period

Emotional support comprises information that a person is esteemed, loved, and cared for. It is enhanced by letting persons in crises know that they are valued regardless of their difficulties (Cobb, 1976). Emotional support from the spouse and other kin has been found to be important. This is borne out by studies that related mothers' postpartum mental well-being to marital satisfaction (Paykel et al. 1980; O'Hara, Rehm, & Campbell, 1983), and to the husbands' emotional support (Wandersman, 1980). In a case control study, O'Hara et al. (1983) compared 11 depressed and 19 non-depressed postpartum women selected from a larger study's population, and found that the depressed group received less emotional support from spouses, parents, and confidants, and reported fewer available confidants. O'Hara and associates found that depressed mothers, compared to non-depressed mothers, expressed greater dissatisfaction with their parents' and parents'-in-law supportive behaviours, but there appeared to be no difference between the groups with respect to the frequency of support received from friends and other relatives (O'Hara, 1986). Emotional support was negatively related to emotional disequilibrium. Although the sample was small, the study showed the importance of emotional support to the mental health of the selected mothers. There was a significant relationship between high life stress within the year prior to delivery and perinatal complications (O'Hara, 1986).

Postpartum Informational Support

Informational support helps a mother to understand and cope with the stress associated with her role as a mother. Informational support has also been called advice or feedback or cognitive guidance (Houston, 1981). This form of support is probably important during pregnancy, labour, and delivery. Childbearing advice is provided by both kin and non-kin members, but it is usually more effective when provided by kin members of the support network (Kenneth, 1989).

Informational support have been reported to be positively related to maternal well-being in the postpartum period. In a study, Bull & Lawrence (1985) reported that 76 to 100 percent of their sample of 78 postpartum women required information, about physical care, feeding of infants, and infant behaviour. Houston (1981) also found that programmed visits during the postpartum period with a person with experience in breast feeding resulted in a breast feeding success rate of 100 percent.

Individual Differences in Needs for Social Support

The effects of personality variables, coping skills, and social competence are important aspects of the social support assessment (Starker, 1986; Turner & Noh, 1983). For example, some individuals find one friend to be sufficient while others may require more social support. Some individuals may accept a considerable amount of support during a crisis, while others prefer more privacy. In addition, some individuals lack the skills necessary to establish and maintain social support (Starker, 1986).

A few studies do acknowledge these individual differences in support needs. For example, Snadler and Lakey (1982) found that individuals' perception of their ability to be in control of the environment (locus of control) influenced the impact of social support. Those who perceived themselves to be controlled by the environment (extroverts) received more support than those who perceived themselves to be in control. In another study, Perlin and Schooler (1978) found that coping styles affect an individual's ability to use social resources. They also noted that in the areas of parenthood and marriage, self reliance reduced stress more than it did in terms of obtaining help from others. Liberman (1982) proposes an assessment of social skills as a means of determining the social support needs of individuals. Liberman feels that, although an assessment of social skills is a better way of assessing one's social needs, there may be problems with this approach because individuals may have identical social skills, yet still vary in their need for support. She feels it is social skills that can evaluate whether a person is capable of obtaining the required levels and types of social support.

The assessment of individual differences in needs for social support is an important means of examining how personality differences can influence social support. It also assists in a mother's understanding of what is considered an acceptable level of support for a mother (Starker, 1986).

However, support changes with the changing needs of the mother. Timing of support need affects the benefits of each type of social support (Jacobson, 1986; Powers, 1984; Wills, 1985). These authors report that emotional, informational support, and physical assistance are related to better postpartum health. Jacobson (1986) contends that emotional and material support are important from three months before delivery and three months after delivery. Pridham (1987) reports that mothers' time and energy are heavily consumed during the puerperium. To Pridham, mothers need help with infant care and household tasks during the first few postpartum months. For example, women's information needs change from the childbirth preparation received in prenatal classes to postpartum education about infant care.

The concerns of mothers in the postpartum period have been studied by Sumner and Fritsch (1977). They reported that although mothers most often expressed concerns within the first several weeks after delivery, their questions did not decrease until six weeks after birth.

New mothers tend to have many questions about infant feeding and elimination in the early postpartum period (Sumner & Fritsch, 1977). These topics are usually discussed to a limited extent during prenatal classes. However, some studies have shown that learning is accomplished best when the individual feels she has the need for the knowledge. It was, therefore, not surprising that mothers felt the need for additional instruction in the postpartum period (Abriola, 1990).

Further, a woman's needs likely change from one pregnancy to the other, so that the first-time mother's needs for information support is probably greater than that of the experienced mother. When mothers were asked to indicate which types of informational support are most useful to them in the postpartum period, issues relating to infant care and self-care were at the top of the list (Bull, & Lawrence, 1985).

Satisfaction With Support

A third issue in the assessment of social support is the individual's satisfaction with social support received. Satisfaction with social support characterizes social support as the cognitive appraisal of being reliably connected to others. It is consistent with Cobb's (1976) assumption that social support is information and Cassel's (1976) emphasis on feedback function of social support. The concept also fits a cognitive model of stress and coping processes that emphasize the appraisal of potentially threatening situations and resources that can be included in coping efforts (Barrera, 1986; Wells, 1982).

Studies indicate that network structure is associated with satisfaction with support and a variety of health outcomes. In a study of relationships among network structure (size, density, type of network member, and number of network members), social support, and parenting for 40 primiparous couples with three to seven months of age, Kagan and Richardson (1979) reported that general satisfaction with support, general psychosocial functioning, and role-related psychosocial functioning were better when networks were larger, closely related, and when they offered a variety of support.

In another study, Seyblod, Fritz, & MacPhee (1991) examined the relationship between the type of support, the networks' characteristics, and the self-perception of sixty-three mothers of disabled children. In this study, satisfaction with support is related to the role demands of the mothers. In view of this, mothers of more severely disabled children were less satisfied with the support they received and had fewer friends and family upon whom they could rely (Seyblod, Fritz, & MacPhee, 1991).

Individuals may be satisfied with the support or perceive it to be inadequate. The source of help may make a difference in the extent to which the help is perceived to be supportive or stressful. People differ with respect to the amount of social support they need and in the amount that is available and used by them (Norbeck, 1981). Support is likely to be effective only when it satisfies the individual's desire for the amount or type of support (Sarason & Sarason, 1986; Wells, 1982). In a study of college students, satisfaction with social support was more important to coping outcomes than the number of people who could be relied on for social support (Sarason & Sarason, 1986). In one study, Tulman & Fawcette (1991) observed that which helps or hinders recovery from childbirth is highly individual. In their study of women six months after delivery, the authors reported that what some women regarded as sources of help with recovery were considered as stressful by others.

Knowledge of people's subjective appraisal of support may be more important to predict their well-being than the actual provision of support (Barrera, 1981; Bruhn & Phillips, 1984). Cumulative findings indicate that satisfaction with social support is more important to well-being than the actual behaviour of others (Cohen & Wills, 1985; Wethington & Kessler, 1986).

Received support may only indirectly affect health through its effects on satisfaction with support. For example, if the behaviour of others suggests the presence of support, but the intended recipient does not perceive support to be necessary, it may not be perceived as satisfactory (Bruhn & Phillips, 1984). In other words, individuals may not view the support behaviours of others as satisfactory if what is offered is not compatible with their needs (Brownell & Shumaker, 1985, Barrera, 1981; Wells, 1982). Consequently, the need for support as well as the availability of support could be the result of changes in physical, cultural, psychological, or social functioning of the recipient (Bruhn & Phillips, 1984).

Methods of Measuring Social Support

There is great diversity in many of the approaches used to measure social support (Barrera, 1980, 1981; Tardy, 1985). There are many social support indexes, such as the Interview Schedule for Social Interaction (ISSI), the Social Support Questionnaire (SSQ), the Norbeck Social Support Questionnaire (NSSQ), and Network analysis, that predominate in the literature. However, each instrument for measuring social support is shaped by the researcher's perception of social support (Tardy, 1985). For example, Barrera (1980), using network analysis observed that although subjective importance might be logical to identify a social "importance" network, it does not call for respondents to name individuals who specifically serve socially supportive functions.

A similar problem arises in methods that identify network members on the basis of their relationship with the focal subject. Barrera (1980) observed that when social support is the central issue, asking a subject to name key family members, friends, and co-workers is imprecise, because not all of these individuals are likely to actually provide support. The meaning of "friend" also varies from one person to another, resulting in the inconsistent interpretation of the term (Jones, Lynne, Claude & Fishcher, 1978).

To avoid some of these problems, Radcliff et al., (1978) and Jones et al., (1978) devised conceptual frameworks that specified the functions that individuals in the social network would serve. Then the respondent would be asked to name individuals who provided at least one of the social support functions.

Published data is currently available on three popularly used instruments developed by nurse researchers (Kenneth, 1989). The instruments are: the Personal Resource Questionnaire (PRQ) measure developed by Brandt and Weinert in 1981 (Brandt and Weinert, 1987), the Norbeck Social Support Questionnaire (NSSQ) developed by Norbeck in 1983 (Norbeck, Lindsey & Carrieri, 1981, 1983), and the Social Network Inventory (SNI) developed by Cronenwett in 1983 based on House's conceptualization of social support (Wilcox, 1981). Brandt and Weinert (1981) based their (PRQ) measure on Weiss's (1974) conceptualization of social relationships. The instrument is comprised of two parts. Part One of the PRQ measures an individual's social resources that are available for specific situations. Part

Two assesses Weiss' (1969, 1974) six components of social support, which are intimacy, social integration, nurturance, reassurance of worth, guidance, and assistance.

The other instrument is the Norbeck Social Support Questionnaire (NSSQ), developed by Norbeck (1983). In developing this instrument, Norbeck depended on Kahn's definition of social support. Designed to be self-administered, the measure assesses twenty network members by asking subjects to list each significant person in their life. Each subject is also required to indicate on a Likert scale the level of support from each person listed (Norbeck et al, 1981). Thus, the NSSQ assesses the functional category of social support, especially instrumental support. In addition, it measures the properties of social support; for example, the number and duration of relationships and the frequency of contact. It also measures sources of support in the network; for example, spouse, family member, friend, and neighbour. Although the PRQ and NSSQ instruments have been reported to be psychometrically sound and measure most aspects of social support, they focus only on the positive aspect of support and are only applicable to the western populations.

This problem about measurement can increase in cross-cultural studies (Henderson, Sampselle, Mayers & Oakley, 1992). For example, Higgings and Dicharry's (1991) experience with Navajo women in the United States of America attests to this problem. The sample was comprised of 29 Navajo women from the same tribe who were of the same clan. The women were recruited and interviewed by a Navajo-speaking nurse. The study found that the PRQ was not culturally sensitive and appropriate. For example, the Navajo women consider it inappropriate to discuss family problems and viewed help from others as humiliating (Dicharry & Higgings, 1991). This study implies that there exists a diversity in the concept of social support between ethnic groups (Henderson, Sampselle, Mayers & Oakley, 1992). Therefore, an instrument that is applicable to one culture may not be appropriate to another (Dicharry & Higgings, 1991). Valid and reliable research tools are needed in order to provide for the health needs of women from various cultural groups. It becomes necessary to modify the measurement of the tools within the framework of a given culture if their information is to be useful (Dichary & Higgings, 1991; Henderson et al., 1992).

In a review of literature on measurements of social support networks, Barrera (1981) also reported that researchers also used unclear words such as "important" and "friends" that confused respondents. Existing methods did not address specific socially supportive individuals.

In response to the need for valid, reliable, and culturally sensitive and appropriate measures, there have been attempts to develop social support instruments with better psychometric values that measure most aspects of support. One of these instruments is network analysis (Barrera, 1981).

Network analysis provides an efficient approach to the assessment of the availability of support, and measures the material, emotional, and other aspects of social support (Hammer, 1980 cited by Barrera, 1980). Network analysis seems to be a reliable identifier of social network membership. This method has provided concepts and methods that have proved helpful in the assessment of social support (Barrera, 1980). The Arizona Social Support Instrument is one of the instruments of network analysis which measures the negative aspect of support in addition to other constructs measured by other instruments. It has also been used on a Mexican population (Barrera, 1980).

Barrera (1980, 1981) constructed and tested the Arizona Social Support Interview Schedule (ASSIS). This instrument is used to assess the respondents' satisfaction with their level of support, as well as their need for support. "The instrument affords researchers the opportunity to examine the interrelationships between indices of social support networks, qualitative measures of support (such as satisfaction), and a measure of frequency with which individuals receive various natural helping behaviours"

(Barrera, 1980, p. 12). He also included measures of conflict[1].

The global measurement of satisfaction may be reliable and valid, but it provides little information on how to plan nursing interventions. For example, measurements of network size and density do not describe satisfaction with social support, and many instruments only measure the positive side of interaction with the social network and do not address conflict.

Conceptual Framework

The conceptual framework that guides the present study is Barrera's view (1980) of social support, which consists of both functional and network properties. Support is viewed in relationship to need, the satisfaction with social support, and negative interaction. The network properties are (a) social network size, or the number of individuals who are perceived as being available, and (b) utilized network members or those who actually provide at least one form of social support function. The six categories of functional dimension of social support which Barrera identified are: (a material aid provided in the form of money and other physical objects; (b) physical assistance, to consist of the sharing of tasks; (c) intimate interactions in a non-directive manner, such that feelings and personal concerns are expressed; (d) the offer of advice and guidance; (e) the provision of feedback to individuals with information about themselves; and (f) social participation and interaction for fun, relaxation, and diversion from demanding conditions. In addition, both satisfaction with support and the need for support are to be expressed by the person with respect to the six identified support categories.

---

[1] Since this study is based on Barrera's instrument, detailed description could be found in the section on conceptual framework in chapter three and data collection instruments in chapter three.

Social support has the potential to mitigate stress and improve health. Although social support is not the only solution for immigration and maternal stress, evidence suggests that social support can lessen the effects of stress on mothers.

The difficulties in measuring social support have largely arisen from the lack of a satisfactory theoretical base, which precludes the development of a systematic research base. Unfortunately, there are wide discrepancies among the approaches that researchers have taken to measure the support construct and social support continues to be measured differently from study to study, usually by instruments that are not appropriate to all cultures. Some researchers have used global measures of social support, while others have focused on specific domains of social support. Problems relating to the sensitivity of the instruments to change in some situations still exist. The network analyses measure has the advantage of measuring several aspects of social support. The user could measure the type of support, the source of support, and the perceived need for support. The negative interaction questions may also prove useful for some investigators (Sandler & Barrera, 1981).

As one goes through life, the availability of and need for support of different types may change. Childbirth and migration are known to impact upon the need for support (Bruhn & Phillips, 1984). For example, the woman who has immigrated to Canada is assumed to experience increased stress due to: (a) the fact that immigrant women are usually far away from their extended families and their home community; (b) they are living with limited financial resources and their husbands are absorbed in the responsibilities and pressures of their jobs; (c) changes in their social environment from an occupational context to the home may contribute to social isolation. Given the literature on social support and its ability to mediate stressful events, including life transactions (Gore, 1981), satisfaction with social support would likely serve to prevent illness and promote health for an immigrant woman who also has a baby. Social support, particularly that which is provided by members of the individual's network, may function by providing emotional support, feedback, information and education on parenting, and material assistance.

Nurses are important social resources for women in all phases of the childbearing cycle. Although social support is a social issue, there is discussion in the nursing literature on the subjects of stress, social support, and the satisfaction with and beneficial effects of support; what is less evident is what immigrant mothers perceive their support needs and sources to be in North America. The author of this study did not find any study literature focusing on the relationship between social network composition, the satisfaction with social support received, and the effects of social support on the health of non-western immigrant mothers within the first year of childbirth. There appears to be a gap in the knowledge base available to health care providers who are interested in providing quality care to mothers undergoing life event stresses. For this reason, this study will describe the social networks and the support received by one group of immigrant Punjabi mothers in Edmonton whose babies are within one year of age. Satisfaction with the support network and conflict in the social network will both be measured.

CHAPTER 3

LIFE IN PUNJAB

The purpose of this chapter is to examine the life and culture of Punjabi Sikh women in order to fully understand the meaning and value they attach to health and illness, pregnancy, childbirth, and child care. Clark (1984) defines culture as the sum total of the values and beliefs, behaviour patterns, ideas, and way of life of a group of people. Clark considers culture as an aggregate of religion, kinship, child rearing and family, morals and values, and the economy of a particular community. Punjabi Sikh immigrants define themselves not only in terms of their country of origin, but also according to cultural heritage, religion, and political identity (Drakulic & Tanaka, 1981).

In Clark's opinion, if one tries to describe a community and its social structure, one should start with the basic institutions that bind it together: the family, the church, and the political and economic conditions. These elements are fundamental structures that have been documented as affecting a person's quality of life (Clark A, 1984).

At a personal level, perceptions of health and illness are also influenced by the person's (a) status within society, (b) family structure (Hershman, 1981), (c) social economic position (Muhlenkamp & Sayles, 1986; Wills & Langner, 1980), and (d) level of education and religion

(Drakulic & Tanaka, 1981; Masi, 1988). In addition factors such as, rural-urban background (Husaini, Neff, Newbrough, &Moore, 1982) acculturation, and intra-ethnic differences need to be considered as potential influences on the perception of health and social support (Pearson, 1979).

The Land and the People

The Punjab is a state in North India. Gupta & Kahn (1976) ascribes the origin of the name Punjab to two Persian words, "panj" (five), and "ab" (water), meaning five rivers. Punjab is bounded on the North by the Himalayan ranges, on the West by the Sulaiman and Kirthan hills, on the East by Yamuna, and on the South by the Sindh and Rajputana deserts. It has an area of about 144,436 square miles (Gupta & Kahn, 1976).

Economic Life

Muhlenkamp & Sayles (1986), Robert (1974), and Wills & Langner (1980) have shown that a person's self-esteem, family life, and physical and mental health are affected by lack of money and meaningful work. Pearson (1979) states that economic conditions may act as both "push and pull" factors for immigrant persons. Such factors influence an immigrant's psychological well-being in their host country. She describes "push" factors as "the unsatisfied needs and deficiencies in the immigrant's home country" (p. 4). Lack of social amenities or gainful employment opportunities in one's country of origin may be considered as "push" factors which drive the person to leave his/her country in a search of a better life. The presence of socio-economic amenities in the host country are considered to be the "pull" factors. However, an immigrant woman pushed to leave her place of origin due to economic factors may find herself disappointed when the pull factors of increased financial and social well-being do not meet her expectations.

These "push" factors could influence the emigration of Punjabi Sikh women. Bhatia (1987) states that the slow economic development of the Punjab in agriculture and industry have not met the basic needs of many Punjabis. Although a section of the Punjab referred to as the Montagne Tract is very fertile, the rest of the Punjab is dry. Food is often scarce, starvation is prevalent and many people suffer from the severe hardships that are triggered by these conditions (Bhatia, 1987). Given these economic conditions, deprivation may have provided a strong push factor for immigration and may affect immigrants' need for material support.

The People and Their Religion

In the Punjab, one can find followers of Hinduism, Buddhism, Jainism, Sikhism, Islam, and Christianity as well as Parsis and Judaism (Bhatia, 1987). The people, though of different religious groups, do share a common designation, Punjabi, and they share some common social practices (Bhatia, 1987). They may also be referred to and share some cultural commonalities with all East Indians, the inhabitants of the Indian subcontinent. The Sikhs have become the dominant religious group in the Punjab (Gupta & Kahn, 1976) and represent 80% of the population in that state. They currently constitute the greatest number of Punjabi immigrants to Edmonton (personal communication with Temple Heads, 1992).

As a religious group, the Sikhs follow the teachings of Guru Nanak, the founder of the Sikh religion (Bhatia, 1987; Gupta & Kahn, 1976). In the Millwoods area there are three Sikh Temples called Gurdura. These Temples provide an opportunity for men and women to come together to worship (*Sangat*) and eat *(Pangat)* in the company of others (Bhatia, 1987; Singh, 1986). Sangat and Pangat are required on a weekly basis for all Sikhs. This continual regular contact with persons of one's own religious background provides an opportunity for social interaction, companionship, and material support in times of need (Bhatia, 1987; Drakulic & Tanaka, 1981; Singh, 1986). Thus, the Temple experience has the potential to strongly influence a woman's choice of support network.

The purpose of life for a Sikh is to seek physical and spiritual growth. Life goals for Sikhs, therefore, include the maintenance of a healthy body, mind, and the acquisition of metaphysical knowledge so that they are able to live a life of spirit (Gupta & Kahn, 1976). With this in mind, a Sikh would likely seek not only material but also informational support in order to enhance those virtues deemed to govern their lives.

Political Life

Political factors in the country of origin sometimes influence a family's decision to move to a new country. Pearson (1979) states that people who emigrate because of political upheaval face more stress than other immigrants and are more prone to psychological problems. In the last two decades the Punjab has seen increasing violence as the Sikhs struggle for their own state (Bhatia, 1987; Singh, 1986). Some Sikhs may have immigrated to Edmonton for political reasons. The reasons for emigration will influence the family's adjustment process, their need for support, and the source and type of support which might be acceptable to them (Muhlenkamp & Sayles, 1986).

Historically, the Sikhs, a relatively small "break off" group of Hindusim, have had to defend themselves to maintain their identity and survive as a religious and cultural group (Singh, 1986). This struggle has created a sense of cohesiveness within the Sikh communities which has helped the Sikhs to adapt to the ever changing political circumstances in their homeland (Bhatia, 1987). The experience of cohesiveness may have created a somewhat insular community, where non-Sikhs are viewed with suspicion. This, in turn may influence Sikh immigrant mothers' choice of persons for their social network.

Kinship and the Family Structure

The cohesiveness of the Sikh community is supported by their family structure. The structure of the Punjabi Sikh family is similar to other Southeast Asian families, the extended family (Assanand, Dias, Richardson, & Waxler-Morrison, 1990). An extended family could be described as a group of people from the same ancestry who live together, interact, are interdependent, and dedicated to seeking the welfare of the extended family members (Assanand et al., 1990). The collective lifestyle is functional in that it provides for the economic and emotional security of its members. For example, family members are readily available to provide information regarding child care (Drakulic & Tanaka, 1981), to baby sit (Assanand et al., 1990), to share household chores (Hershman, 1981), and to provide companionship (Drakulic & Tanaka, 1981).

Traditional Punjab culture attaches great importance to gender roles (Hershman, 1981; Assanand et al., 1990). Men become family heads, and identify and provide for the needs of the family (Hershman, 1981). Often, a woman is the possession of her husband, who exercises control over her. She is required to be submissive and obedient to him (Drakulic & Tanaka, 1981). In this system, the elderly become the advocates for the youth. They arrange marriages for the family members and help to raise their grandchildren (Hershman, 1981).

A woman's role is to care for family members and carry out the household chores. Women do not customarily work outside the home; therefore, they are financially reliant on their husbands and dependent on the extended family (Assanand, et al., 1990; Drakulic & Tanaka, 1981). Due to immigration, many immigrant Sikh families find themselves living as a nuclear family, which may require them to develop non-traditional sources of support to ensure their well-being (Drakulic & Tanaka, 1981).

Immigrant Sikh women may find themselves in the non-traditional roles of working outside the home. Therefore it is important for health professionals to understand the way in which a Sikh woman accesses social support when she is in need of help.

Punjabis' Beliefs About Health and Illness

Cultural beliefs about health, illness and childbirth prevail in all societies, and they are specific to the society in which they originate. For instance, there is a notion among East Indians that ill health results from natural, self-inflicted, and supernatural causes (Masi, 1988).

For the East Indian, the concept of equilibrium is associated with the concepts of harmony, humoral balancing, and hot and cold balancing, which form the basis of their view of health. These concepts are not familiar to most Western biomedical practitioners (Laryea, 1991). As in many cultures, the Punjabis also utilize magical rituals or spiritual healing as part of their health-seeking behaviours. For instance, the placenta of the first born is buried in the house and not in the fields, as is customary with the afterbirth of other children (Hershman, 1981). In the Punjab, the first-born child is surrounded by taboos and mystical dangers (Hershman, 1981). The power of the first born is believed to reside in the placenta. If the child becomes ill candles are lit at the site of the buried placenta to cure the child. The first-born's swaddling clothes must also be carefully preserved, lest the baby fall prey to potential sorcerers. The newborn child's hair remains unshaved, as it is believed that the child may die when its hair is swallowed by a witch (Hershman, 1981). Again, owing to the paucity of these belief systems in the dominant culture in Edmonton, and the increased need for social support amongst immigrant women, it is important for health workers to understand the perception of health, illness, pregnancy, childbirth, and child care from the East Indian/Punjabi Sikh perspective.

Beliefs About Pregnancy

Childbearing is an important traditional role of Punjabi Sikh women. In the Punjab, pregnancy is considered as a normal life event and a healthy state for all women. As a result, the availability of a comprehensive prenatal education is limited. Women do not see the need to consult a doctor unless there is a problem (Hershman, 1981; Assanand, et al., 1990). This is particularly true of women in the rural areas, who usually plan for home deliveries. Help and advice are provided by the pregnant woman's mother-in-law, and by the midwife who visits periodically. The most appropriate source of information seems to be family members. Life continues as usual throughout the pregnancy (Assanand et al., 1990).

Beliefs About Nutrition in Pregnancy

Pregnancy and childbirth have traditionally been viewed as different states of the interaction between hot and cold energies. Food with appropriate "cold/hot" properties should be consumed to compliment or adjust the present energy state. For example, during pregnancy, a woman is considered to be of a cold constitution characterised by fatigue and reduced resistance to stress (Assanand et al., 1990). At such times, foods that are considered cold are avoided in favour of the "hot" foods and herbs which are required to increase blood circulation, restore energy, and stimulate functioning. In general, the diet of pregnant women in the Punjab is the same as when she is not pregnant, except during the first trimester when she may avoid "hot" foods such as meat, eggs, and nuts. "Hot" foods are believed to cause miscarriage, premature birth, and/or loss of the baby (Assanand et al., 1990). Thus, there is an emphasis on cooling foods such as butter and milk, some fruits, coconut, and yogurt during the first and last trimesters. These foods, particularly butter and milk, which are believed to facilitate childbirth may be eaten in increased quantities (Hershman, 1981; Assanand et al., 1990). Childbirth is known to also render a woman "cold;" that is, the person experiences diminished physiological and metabolic functioning. Consequently, she requires "hot" foods to warm up the internal organs and maintain body equilibrium (Assanand et al., 1990). Such a diet is not difficult to obtain in Canada. However, well meaning health professionals may fail to understand the Punjabi's beliefs regarding "hot" and "cold" foods. This may lead to confusion and alienate Sikh women if diets are recommended which conflict with the cultural and religious beliefs.

Beliefs About Activity/Exercise During Pregnancy

Amongst Sikh women exercise is not considered to be important in pregnancy. During pregnancy, women tend to observe the traditions regarding activities. For example, women who usually work in the farms continue to do so, without lifting heavy objects (Assanand et al., 1990)). Elderly women encourage pregnant women to lead normal lives and not become inactive. Inactivity is believed to produce large babies, and it may complicate delivery. Certain activities seem to be guided by superstitions. For instance, pregnant women are cautioned to avoid visiting a recently deceased person's home and that of any woman with a history of recent stillbirth (Hershman, 1981).

Beliefs About Labour and Delivery

In the Punjab, a woman traditionally returns to her own parents' home for the delivery of her first child, and sometimes for subsequent births (Hershman, 1981). Most births occur at home, supervised by midwives in the presence of the woman's mother, mother-in-law, or married sister.

During labour, the midwife encourages the woman to be active, and to walk around, and she sometimes gives the mother herbal medicines to facilitate the birthing process (Assanand et al., 1990). Delivery occurs from a squatting or sitting position. The baby remains with the mother after birth. After childbirth, especially if the baby is a boy, visitors come in large numbers to celebrate the event, and bring sweets (Dihn et al. 1990). Hershman (1981) states that the Punjabis prefer and cherish male children because of the belief that it is the son who remains in his parent's village, continues the family line (while a daughter departs to her husband's home at marriage), and takes care of the parents in their old age.

In Edmonton, Sikh women are faced with a very different birthing experience. First, it is difficult to find a midwife in Edmonton, and most deliveries occur in the hospital with a male physician in attendance. The experience of delivery in an Edmonton hospital can be very difficult for the Sikh mother. The midwife who has known the family for years is not present to provide personal support. Moreover, a large number of friends may not be welcome at the hospital. Therefore, the Punjabi Sikh mother may feel isolated and alone.

In the Punjab, child bearing is considered to be a woman's affair, and husbands are not usually involved except in emergency situations (Thompson, Sanghera & Mroke, 1986; Assanand et al., 1990). In Edmonton, Punjabi Sikh husbands, unlike the majority of Canadian husbands, may be reluctant to accompany their wives for pre-natal care and pre-natal classes. They may also feel uncomfortable in supporting their wives during the post-partum period with household duties and child care. During pregnancy, childbirth, and the postpartum period, a Sikh mother who is not surrounded by a traditional family may likely need to non-traditional support networks.

Beliefs About the Postpartum Period

The health beliefs of Punjabis influence the care of the mother and child after birth. The traditional practice among the Punjabis is for the mother and the new baby to remain secluded in the home anywhere from a week to forty days (Assanand et al., 1990). However, it is more difficult to remain under seclusion in Edmonton, because Sikh women may not have an extended family to assist them. The belief is that the woman is in her weakest state during this extended postpartum period when she is most susceptible to chills and backaches and requires rest. If the mother fails to comply with this practice of seclusion, she may suffer from arthritis and other ilinesses later (Assanand et al., 1990).

A new mother is expected to stay with the baby for most of the time in the early period following the birth. Usually, members of her extended family assist her, or a relative may visit to help her for a month (Assanand et al., 1990). During the postpartum, the woman is kept warm, because blood which is "hot" has been lost; therefore, the woman is susceptible to becoming "cold."

Within the first month after delivery, "hot" foods and herbs are recommended, and the, "cold" food is discouraged in the postpartum period (Assanand et al., 1990). "Hot" foods include ginger, which is consumed in a variety of ways. These hot foods are believed to promote circulation and increase vitality during and after pregnancy (Assanand et al., 1990). Eating these hot foods is believed to promote the physical health of the mother. "Hot" foods are thought to revitalize the body, adjust the system, and expedite the flow of blood and other body secretions, so that involution of the uterus occurs more quickly. On the other hand, cold foods cause fluid retention and result in weight gain (Assanand et al., 1990). Later the new mother eats "*panjiri*," a whole wheat flour fried in butter with pistachios, sugar raisins, almonds, and different kinds of seeds (Assanand et al., 1990). The family usually provides the appropriate foods for the post partum mother. The mother must be kept warm, as this is considered an important aspect of her health. She is, therefore, advised to keep herself well covered even in hot weather, and to avoid fans. Hot water baths and massages with oils are acceptable practices after childbirth (Assanand et al., 1990).

During the forty-day postpartum period, visitors are allowed, and they may bring gifts to the mother and baby. It is customary for the mother to celebrate the birth (Assanand et al., 1990). However, visits by certain people, such as widows, women who have lost children, and people in mourning are prohibited, as they are believed to bring bad luck to the baby. Visitors are not allowed to compliment or admire the baby to excess, for fear of the harmful effects of the "evil eye" (Hershman, 1981; Assanand et al., 1990).

A one-month period of rest is considered ideal. Family members or hired help provide support for infant care and household chores. After the delivery, women observe the tradition of not bathing regularly. After the initial cleansing bath, mothers neither bathe nor shampoo their hair for about a month (Assanand et al., 1990). At the end of the 40 days seclusion, the postpartum woman washes down thoroughly, and the necessary rituals are performed by the family to mark the end of the post-partum period, and to signify a healthy state for the mother and child. Because these cultural beliefs are observed by a minority of the population in Alberta, and many Sikh women are here without their extended family, it is essential for health care professionals to learn of their sources of information pertaining to child care.

In Edmonton, care after childbirth could have serious implications for a Punjabi immigrant mother's health. Some Punjabi mothers find themselves in non-traditional roles, needing to work to support their husbands financially as early as six months after childbirth (Drakulic & Tanaka, 1981). Presumably, these working mothers will need some assistance with the care of their babies while they are at work. It is, therefore, advantageous for the nurses to understand the sources of help or support that are available and how the mothers perceive the help they receive from such sources.

CHAPTER 4

METHODOLOGY

The Sample

The population for the study was Sikh Punjabi mothers who had babies within a one-year period and lived in the Millwoods area of Edmonton. Mothers who had both vaginal deliveries and deliveries by Caesarian section were included in the study. To be included in the study, a subject had to meet the following criteria:

(1) She had immigrated to Canada.

(2) She had given birth to a baby within the past 12 months.

(3) She gave informed consent to participate in the study.

(4) She spoke and understood English.

(5) She was accessible via a local direct telephone.

Sikh mothers volunteered to participate in the study by returning their signed consent forms. Sixty interviews were conducted.

The Study Area

The Millwoods community is nine square miles in area, and is located in the southeastern corner of the City of Edmonton. Millwoods, one of the fastest growing communities in the Edmonton metropolitan region, was first developed in 1970 by the City of Edmonton (Decore, 1989).

Millwoods is made up of nine communities bordered to the North by 23rd. Avenue to the East by, 50th Street (Pollard Meadows) to the West, 66th Street (Ekola), and to the South by Mill Road (Sakawa).

The population increased from 76,300 people in 1992 to 78,800 people in 1993, and has grown at a rate of 2000 persons per year since 1986 (Decore, 1989). Millwoods is the largest publicly sponsored residential development project in Canada (Decore, 1989). The majority of Punjabi Sikhs in Edmonton reside in Millwoods where there are three Sikh Temples (personal communication with a Temple Head, 1992).

Procedure

Sikh Temple Heads gave mothers who fit the criteria of the study a letter that described the study. The mothers also received a consent form and a self-addressed, stamped envelope in which they could return the signed consent form to the researcher. Copies of the letter and, consent form appear in appendices C and D, respectively. Sixty letters and consent forms were distributed. Those who were interested in participating in the study mailed their consent form to the researcher. All 60 of the consent forms that were distributed were returned to the researcher.

Ten mothers were excluded from the final sample. Five of the respondents did not have the opportunity to respond to the questions, as their husbands responded to the interview questions for them. Three mothers initiated a post interview phone call and admitted that the responses they provided were, what one could describe to be, socially desirable responses to please their in-laws. Two mothers were interviewed in the temple at their request. These mothers preferred the temple because they felt more relaxed without their in-laws present. Subsequently, however, the data from these two interviews were lost. Therefore, data from a total of 50 respondents are included in this study.

Protection of Human Rights

To participate in the study, each subject was asked to sign a written consent form that was approved by the Faculty of Nursing's Ethics Review committee (see Appendix B). The researcher discussed the study with Temple Heads, and shared the data collection instruments with them. They agreed that participation in the study posed no risk to their temple members (see Appendix A). The Temple Heads in Millwoods agreed to allow the researcher to present for participants in this study at the three Temples during their communal meal following services. In addition, the researcher brought several written documents to these presentations, which were distributed by the Temple Heads. A cover letter introduced the researcher and provided information about the study, including (a) its purpose, (b) the researcher's role, (c) the number of questions that would be asked, (d) how the data would be used, and (e) the manner in which anonymity and confidentiality would be maintained (see Appendix C). Informed consent was sought from the participants (see Appendix D). In addition, the Temple Heads provided written permission for the investigator to conduct the study (see Appendix A). To protect the women from feeling any sense of coercion, they were asked to contact the researcher if they were interested. Mothers were told that they were free to abstain from participating in the study, that they could withdraw at any time, and that their response to questions in the study constituted their consent to participate.

All instruments were given an identification number to ensure anonymity and confidentiality. Only the assigned code was used throughout the study. The data were kept in a locked drawer at the University of Alberta, and apart from the consent forms.

Each respondent was aware that no physical risks or experimentations were involved in this study. Although no direct benefits were expected, participants were advised of the potential benefits that would accrue to the care of mothers in the puerperium. Respondents were also informed that their decision to participate in the study or abstain would not affect their future care.

Data Collection Instruments

The Arizona Social Support Interview Schedule, the Cantril's Self-Anchoring Striving Scale, and the personal interview guide were used to collect the data from the immigrant Punjabi Sikh women. Each of the instruments will be described in turn.

Arizona Social Support Interview Schedule

Social support was measured using the Arizona Social Support Interview Schedule (ASSIS) which was developed and tested by Barrera (1980, 1981). The ASSIS is a structured interview that is designed to assess multiple elements of social support. It determines the number of persons available, and those utilized for support. The ASSIS consists of a total of eight questions that cover several aspects of support, including the identification of support network membership, and the respondent's satisfaction with and need for support.

The ASSIS instrument requires respondents to identify individuals (by first names or initials) who are perceived to provide support in the following areas: intimate interaction, material aid, advice, positive feedback, physical assistance, and social participation. Following the eight questions, the respondent is asked other questions concerning whether the people previously identified had actually provided support after childbirth and whether they were satisfied with the support they received. The ASSIS instrument also asks about conflicts or unpleasant interactions that require the respondents to identify people with whom they have had personal conflict during the past year. Finally, ASSIS ask the respondent a series of questions about personal characteristics of the individuals identified as providing support, such as their age, sex, and ethnicity.

Scoring of ASSIS

The answer sheet (see Appendix F) depicts the scoring of the ASSIS. The scores of the ASSIS used in this study are based on questions pertaining to intimate interaction (Question A), material aid (Question B), advice (Question C), positive feedback (Question D), physical assistance, (Question E), social participation (Question F) (see Appendix F). negative interactions (Question G) and personal characteristics of network members (Question H).

To obtain the scores for the size of social support network, the social support network members were categorized into two groups: available and utilized social support network members. The "available" social support network was perceived as the number of people identified by the mother as being available to provide at least one of the support functions (first column A to G of the social support network answer sheet). The "utilized" social support network was represented with a check mark against the support functions, (second column A to G of the social support network answer sheet).

Satisfaction with support was the score selected on a scale from "very dissatisfied" (1) to "very satisfied "(7) by the subject. Higher scores indicated higher levels of satisfaction with social support, and lower scores indicated lower levels of satisfaction with social support. The support need score was selected between "no need at all" (1) to a "very great need" (5). Finally, the sum of the scores for each of the six functional support questions resulted in the total satisfaction score or total need score.

Social support network members who were also the source of interpersonal conflict were so indicated by check marks in the first column of G, and those who actually caused conflict after the birth of the child were indicated as such in the second column of G.

Next, personal characteristics of the social support network members were described. The social support network member's relationships with the respondents, and their age, gender, and ethnicity were identified.

Reliability and Validity of the Original ASSIS

The construct validity testing of ASSIS was based on evidence from studies that showed that the instrument did indeed measure the construct it purported to measure. The initial construct validity testing of the ASSIS was done by administering the ASSIS to 36 mental health patients (Barrera, Beca, Christiansen, & Stohl, 1985). Agreement between subjects and network members across the six support categories ranged from 69 percent to 97 percent, with significant coefficients, which indicated that network member informants corroborated the self-reports of subjects (Barrera, Beca, Christiansen, & Stoh, 1985).

Another test was done in the course of a study of pregnant adolescents (Barrera, 1981). The measures of conflicted network size, need, and satisfaction correlated significantly with several measures of maladjustment, depression, anxiety, and somatization, while non-conflicted network size, need, and satisfaction correlated significantly with a measure of negative life events.

The second portion of the 1981 study assessed the concurrent and predictive validity of the ASSIS through a simultaneous administration of the Family Environment Scale as developed by Moos and Moos (1981), and the Child Assessment schedule as developed by Hedges, Kline, Stern, Cytryn, & McKnew, (1982). Eighty-six pregnant adolescents participated in this phase of testing. Predictive validity of the ASSIS test yielded the following results: conflicted network size correlated significantly with depression ($r = 0.23$) and anxiety ($r = 0.30$); satisfaction correlated with depression ($r = - 0.49$) and anxiety ($r = - 0.34$), and need correlated significantly with depression ($r = - 0.48$), anxiety (r = -0.51), and "somatization" (r = 0.28). In their study, life events were reported to correlate with non-conflicted network size, (r = 0.25), need for support (r = 0.36), and dissatisfaction with support (r = 0.38).

Barrera tested for the reliability of the ASSIS through the repeated administration of the instrument to university students and pregnant teenagers (test/re-test reliability). First, given a sample of 45 college students, the total size measure yielded a test/re-test correlation coefficient of 0 .88 over a period of two or more days. The size of the conflicted network resulted in a low test/re-test correlation coefficient of 0.54 but was significant. The coefficient alpha of 0.33 for satisfaction and 0.52 for need measures were also low. The sums of the two measures reported test/re-test correlations were 0.61 and 0.80 respectively. The results suggest that need and satisfaction vary internally and are stable over time (Tardy, 1985).

In addition, internal consistency was ascertained through an analysis of the inter-correlations among all of the items on the ASSIS. An estimate of internal consistency, a Cronbach's Alpha of 0.89 for the total scale, was achieved. The following results were reported for: intimate interaction (0.67), material support (0.89), positive feedback (0.74), physical assistance (0.80), advice (0.64), social participation (0.88), utilized network size (0.98), and conflict (0.68). The high alpha coefficient showed that there is internal consistency among the support categories (Barrera, 1980).

Revision of the ASSIS

The researcher obtained permission from Barrera to modify (see Appendix I) and slightly modified some of the questions in the original ASSIS to suit the purpose of the study. For example, the phrase "about things that are very personal and private" (Question A1 of the original ASSIS) was changed to "about the changes in your life" (Question A1 of the revised version of ASSIS); the phrase "since becoming a parent, during the last month" (Question A2 of the original ASSIS) was changed to "since the birth of this baby" (Question A2 of the revised ASSIS); the phrase "who are the people whom you could expect to let you know that they liked your ideas or the things that you do" (Question D1 of the original ASSIS) was changed to "who are the people whom you could expect to let you know that they liked your ideas of how you care for your baby's growth, development, and behaviour" (Question D1, revised); the phrase "time and energy to help you take care of something that you needed to do" (Question E1 of the original ASSIS) was changed to "time and energy to help you take care of your baby" (Question E1, revised); the phrase "who are the people who you can expect to make you angry and upset" (Question G1 of the original ASSIS) was changed to "who are the people whom you can expect to criticize your ideas of how to best parent your baby and expect too much of you" (Question G1, revised, see Appendix E).

Reliability and Validity of the Revised ASSIS

Four measurement experts were asked to examine the revised items in the ASSIS, to assess whether or not the revised items were an acceptable substitution for the original items, and if the concept of social support was affected by the changes. All of them agreed that the revisions were appropriate, and that they did not change the social support construct. The instrument was also examined by three members of the Punjabi Sikh community, who all agreed that the instrument was appropriate to be used with their subjects.

Pilot Test

To pretest the procedures and methods of data collection, a test of equivalence using two interviewers was conducted with respondents who were not included in the study. This preliminary test provided the researcher with the opportunity to practice obtaining consent, asking questions, and recording the responses. The test also was employed to identify problems associated with any of the questions. Chronbach's Alpha test was conducted on the revised version of the ASSIS to determine the internal consistency between the support categories.

The ASSIS was administered to four Punjabi women (a convenience sample) by the researcher and a PhD student in Elementary Education. Each mother was interviewed twice; the second interview immediately followed the first but was administered by a different researcher. During the second interview, questions were asked at random rather than according to the original form. Pearson Product-Moment correlations were calculated for the responses in the first and the second interviews for the network size (available and utilized, and conflict), satisfaction, and need. The respondents were also asked for feedback concerning the investigators' manner during the first interview. The findings of the pilot test are below. The four respondents who participated in the pilot test indicated that the researcher's general approach to the interviews was appropriate.

Table 4-1

Split Half Reliability Test of the Revised ASSIS

Support Categories	**Available Network (N=4)**	**Utilized Network (N=4)**
Intimate Interaction	0.63	0.36
Material Aid	0.68	0.66
Advice	0.80	0.72
Positive Feedback	0.79	0.76
Physical Assistance	0.78	0.98
Social Participation	0.50	0.51
Total Network	0.73	0.71
Total Satisfaction		0.76
Total Needs		**0.78**

The Cantril's Self-Anchoring Striving Scale (SASS)

Perceived health status was measured by a ten-point Self-Anchoring Striving scale SSAS also known as Cantril ladder, ranging from one ("worst health I can imagine") to ten ("best health I can imagine"). The SASS was developed by Cantril (1965) as a subjective instrument to measure life satisfaction or quality of health (Cantril, 1965). The mother was shown a picture of a ladder with 10 rungs addressed as follows: "Here is a picture of a ladder. Suppose we say that the top of the ladder represents the best possible health for you, and the bottom represents the worst possible health for you. Where on the ladder do you feel you personally stand at the present time?" (See Appendix G.)

A number of studies indicate that the SASS has been tested for reliability and validity. Validity of SASS has been reported by Garrity, Somes, and Marx (1978) who demonstrated a significant correlation between perceived health status on a self-rating scale and health status measured by other scales. Stability of the scale has also been reported by Engel (1981), and by Schman, Phillips, & Streib (1958). The SASS has been reported to have been sensitive and valid with culturally diverse people (Meleis, Lipson & Paul, 1992). It has been used with such immigrant populations as Arab-Americans (Reizian, 1984; Reizian & Meleis, 1987) and five Middle Eastern immigrant groups (Egyptian, Yemeni, Iranian, Armenian, and Arab immigrants) (Meleis, Lipson & Paul, 1992). The culture of origin accounted for a significant percentage of variance in perceived health status ($R = 21. p < . 001$) (Meleis, Lipson, & Paul, 1992).

The SASS is scored by numbering the rungs in the ladder from 1 (poor health) to 10 (good health). The number of the rung on which the subject placed herself was recorded as her score, and represented her perceived current health status.

Demographic Data

Demographic data was collected in the final part of the interview using a structured interview schedule. The data included: age, level of education, household composition, child-related information, immigration information, family background, and socio-cultural information about the respondents (see Appendix H).

Data Collection Procedure

The Faculty of Nursing Review Committee approved the study (see Appendix B), and the Punjabi Sikh women expressed interest after hearing presentations in the Sikh Temples in Millwoods. Upon receipt of each consent form the researcher telephoned the mother and discussed the study further and responded to their questions. An appointment was then made for an interview in each respondent's home. Questions from the Arizona Interview Schedule were individually read to the mothers and the researcher recorded their responses, on the network answer sheet (see Appendix F).

To identify the available network members, respondents were asked to indicate individuals (by first names or initials) whom they perceived to provide support in the following areas (in the first column A to G) (see Appendix F): private feelings, material aid, advice, positive feedback, physical assistance, social participation, and intimate interaction. Following these questions, the respondent was asked other questions concerning (a) whether the people identified earlier actually provided support after childbirth in the areas mentioned above, (utilized network members) (b) whether she was satisfied with the support received and how much she needed that support. Finally, the respondent was asked a series of questions requesting personal characteristics of the individuals identified as providing support, such as, their relationship, age, sex, and ethnicity. After responding to the social support section of the interview, each mother was asked to identify her perception of her current health using the Cantril Ladder. Each interview was approximately one and one-half hours in duration.

Field notes were maintained during the interviews. The field notes contained observations made during the interviews and verbatim recording of comments made by the subjects during the interviews. These notes documented the people who were present, and the role they played during interview sessions, whether or not husbands responded to the interview questions, and the occurrence of interruptions during the interviews. Some respondents concerned about their material support and physical assistance, the need, type, and availability of social support networks. A few comments were made about respondents' satisfaction with respect to the support they received from their husbands. Some comments also shed light on stresses associated with childbirth, preferred gender of the newborn, respondents' health status, and their lack of knowledge about their husbands' incomes. The field notes were used by the researcher to aid in interpretation of the statistical analyses.

Data Analysis

Attempts were made to minimize errors in coding the data. The researcher checked the coding against all raw data collection sheets. Data were coded and processed using the Statistical Package for Social Sciences (SPSS). Two research consultants in the Department of Sociology compared all the data collection sheets to the coded data on two separate occasions. When the data entry was completed, the disparities that were observed between the raw data and the coded data were edited. Finally, a descriptive analysis was run to test for accuracy, and the researcher compared the data entered on the computer to the raw data. The researcher rechecked the data several times until the computer data and the raw data were identical.

Generally, most of the respondents perceived their health as good. Their mean health status was 6.66, with a standard deviation of 1.66 and a range of 3 to 10 (see Table 4-2). The majority of the respondents (26) rated their health status to be 5 or 6 on the Cantril's Ladder.

Table 4-2

Frequency Distribution of the Health Rating of Respondents

Health Rating	**Frequency**
3	1
4	1
5	11
6	15
7	6
8	9
9	3
10	4
Total Respondents	**50**
Mean	**6.66**
Median	**6.0**
Standard Deviation	**1.66**
Range of Responses	**3 - 10**

The original intent was to divide the women into two groups based on the median score. As there were 15 women with median score of 6, the respondents were divided into three groups: those in low health (scores of 3, 4, and 5), those in medium health (score of 6), and those in high health (scores of 7, 8, 9, and 10).

Data were missing due to a lack of responses for questions relating to the satisfaction with social participation, intimate interaction, and material support subscales. Nineteen respondents did not provide a response to their satisfaction with support for the social participation subscale, five of whom were in the low health group, nine of whom were in the medium health group, and five of whom were in the high health group. Five respondents did not provide an answer for their satisfaction with support on the intimate interaction subscale; four of these were in the high health group and one was in the low health group. Three respondents, all of whom were in high the health group, did not rate their satisfaction for material support.

The social participation subscale was omitted in the calculation of satisfaction score. In the calculation of the total satisfaction score "no ratings" on material support and intimate interaction were recoded using the mean scores for the sample on the corresponding subscale to replace the missing individual scores. Ultimately, the frequency distributions of both satisfaction variables were analyzed again.

One-way Analysis of Variance (Bartlett's F statistic) was computed for total satisfaction recoded, total network members who caused conflict, total available members, total utilized network members, and demographic variables, (respondents' age, years married, and the age of baby on health status). Chi-square was used to test for the association between work status and perceived health status; sex of the infant, sex preference and problems with pregnancy and perceived health status.

CHAPTER 5

FINDINGS

This chapter presents the findings of the study. It starts with the findings from the pilot and the reliability tests. It also supplies background information on the respondents. Such information deals with their demographic characteristics, family background, obstetric information, and socio-cultural background. The chapter also reports data on respondents': (a) perceived health status; and (b) the size and composition of social support networks (available, utilized, and conflict); and (c) perceived satisfaction with support received. The last section of the chapter presents findings from the Analysis of Variance (ANOVA) with respect to the relationships between the (a) size of the networks and health and (b) satisfaction with social support and perceived health of the Punjabi Sikh mothers.

Relationships Between Support Categories

A Chronbach Alpha estimation was run using Statistical Package of Social Sciences to test for internal consistency of the revised instrument for this sample (N = 50). A Cronbach alpha of 0.83 for the total scale was achieved. The following results were obtained for the six support categories for available networks: intimate interaction (0.79), material aid (0.82), advice (0.79), positive feedback (0.78), physical assistance (0.83), and social companionship (0.80). For the total utilized social support scales the following results were obtained: intimate interaction (0.72), material aid (0.75), advice (0.73), positive feedback (0.76), physical assistance (0.85), and social companionship (0.75) (See Table 5-1).

Table 5-1

The Reliability Test of the Revised ASSIS (Six Categories)

	Available Networks	**Utilized Networks**
Support Categories	**Alpha**	**Alpha**
Intimate Interaction	0.79	0.72
Material Aid	0.82	0.75
Advice	0.79	0.74
Positive Feedback	0.78	0.76
Physical Assistance	0.83	0.85
Social Participation	0.80	0.74
Total Network	0.83	0.82

A Cronbach alpha of 0.83 for the total scale was achieved without the social participation subscale. The following results were obtained for the five functional social support sub-scales as follows: available intimate interaction (0.76), material aid (0.78), advice (0.74), positive feedback (0.75), physical assistance (0.80). For the total utilized social support sub-scales the following results were obtained: intimate interaction (0.63), material aid (0. 69), advice (0.66), positive feedback (0.69), physical assistance (0.83) (See Table 5-2).

Table 5-2

The Reliability Test of the Revised ASSIS (Five Categories)

	Available Networks	**Utilized Networks**
Support Categories	**Alpha**	**Alpha**
Intimate Interaction	0.76	0.63
Material Aid	0.78	0.69
Advice	0.74	0.66
Positive Feedback	0.75	0.69
Physical Assistance	0.80	0.83
Total Network	0.80	0.74

From the foregoing results, it seems safe to assume that the ASSIS has content validity among immigrant Punjabi Sikh mothers as well as construct validity. Assessment of internal consistency demonstrated a high coefficient (Cronbach's Alpha = 0.80) and showed that the ASSIS was reliable. The author's experience during the pretesting and validation with fifty women suggests that ASSIS could be used for this group of women.

Description of the Sample

The mean age of the mothers in the sample was 27.18 years, with a range of 21 to 41 years, and a standard deviation (SD) of 4.34. Thirteen (26%) of the respondents were employed outside the home, and 37 (74%) were not employed. Of the employed, six were employed on a full-time basis and seven were part-time workers. Further, six of those employed, worked at least thirty hours per week, while the rest worked less than thirty hours per week.

With respect to the earnings of respondents, most of those working part-time (N = 7) earned between $5.35 and $10 per hour. Half of the full-time working respondents (N = 3) earned $36,000 per annum, and the rest (N = 3) earned $48,000, $30,000, and $24,000 per annum income. Thirty-five respondents (70%) did not know their household income. Of those who stated their household income, four indicated $3000.00 per month, three $4000.00 and eight stated $1100.00.

Immigration Information About the Respondents

The mean number of years in Canada was 5.0 with a standard deviation of 2.69 and a range of 1 to 11 years. Nine respondents (N = 9) resided elsewhere in Canada before coming to Edmonton: seven respondents first resided in British Columbia, one had resided in Fort McMurray, and one respondent had resided in Toronto. Forty-one respondents had not resided anywhere else in Canada.

Family-Related Information About the Respondents

Respondents provided information on the following: (a) whether or not their mother and father are alive; (b) the location of their parents' residence; (c) the distance between their residence and that of their parents; (d) the individual(s) with whom they resided in their home country before coming to Canada; and (e) the individual(s) with whom they reside in Edmonton. Respondents were also asked if they were bothered by any difference in the composition of the household since leaving their home country. The mothers of 44 (88%) respondents were alive, and four respondents had lost their fathers. With respect to the residence of their parents, 39 (78%) respondents stated that their parents lived in the Punjab, and the others had parents living in Edmonton or in British Columbia. When the respondents were in the Punjab, 45 (90%) had resided with both of their parents, and the rest (10%) had lived with their siblings, mothers, extended family, brothers and their wives, or their parents-in-law. In Edmonton, however, the majority of the respondents 27 (54%) resided with their husbands while 13 (26%) resides with their husbands and parents-in-law.

Ten others (20%) resided with a combination of relatives, or relatives and in-laws. Most of the respondents (66%) were not bothered by change in the composition of the household as a result of their change of residence.

Socio-Cultural Information About the Respondents

The respondents in this study were married and all had their marriages were arranged. Forty-three respondents (86%) were married in the Punjab, while seven (14%) were married in Canada. The duration of their marriage ranged from 1 to 17 years, with a mean of 4.92 and a standard deviation of 2.89.

Twenty-three of the respondents (46%) had male children, 14 (28%) had both male and female children and 13 (26%) had female children. It was more important for the majority (84%) to have a son, and having a daughter was more important to one respondent. Four respondents (8%) preferred children of both genders, and for three (6%), gender did not really matter. Respondents gave multiple responses regarding the person for whom having a male child was important. Of the 124 responses, 38 responses indicated that having male children was more important to their parents-in-law, 26 (21%) stated that having a male child was important to themselves and their spouses. Twenty-two responses (17%) indicated that having male children was more important to their parents.

Child-Related Information About the Respondents

Forty-seven respondents (94%) did not experience any difficulty getting pregnant. Overall, respondents had been pregnant between one and four times; the average number of pregnancies was 1.50. Thirty-four respondents (68%) had one pregnancy and 16 (32%) had more than one pregnancy. Furthermore, the majority (47) of the respondents had not experienced difficulties with their pregnancies. Two respondents experienced problems with their first pregnancy (severe vomiting and bleeding), and one respondent encountered problems with her second pregnancy (high blood pressure and ended in a Caesarean birth). The average age of respondents' babies was 7. 38 months, with an age range of 4 to 12 months and standard deviation of 2. 35.

Social Support Network Members

This section presents findings on the social support networks of respondents: total available network size, (the social support network members identified by the respondents to be available), and total utilized network size (those social support network members identified by the respondents to have provided support for at least one of the support functions), network members characteristics, and respondents' satisfaction with the support they received. Sixty network members were likely to cause conflict and 42 network members did cause conflict while endeavouring to help the respondents during the past one year after childbirth.

Total Network Size

Table 5-3 presents the social support networks of the respondents. Forty-eight percent (48%) of the mothers had 4 or 5 social support members. The mean number of network members available was 5.88, a standard deviation of 1.76, and ranged between 3 and 11 social support network members. Forty percent (46) of the mothers utilized 4 or 5 social support network members with a mean of 5.72 and ranged from 3 to 10. The mean number of network members utilized was 5. 72. The number of network members who were likely to cause conflict ranged from 1 to 2 members, mean 1.16, and SD 0.95. The mean of those who did cause conflict was 0.82. SD. 0.74 with a range from 1 to 2.

Table 5-3

Frequency Distribution of Respondents' Total Network Size and Conflict

Network Size	Frequencies (N=50)			
	Available Network	Utilized Network	Available Conflict	Caused Conflict
0	--	--	16	16
1	--	--	26	26
2	--	--	9	8
3	1	3	--	--
4	11	10	--	--
5	13	13	--	--
6	9	8	--	--
7	7	10	--	--
8	5	2	--	--
9	2	2	--	--
10	1	2	--	--
11	1	--	--	--
Mean	5.88	5.72	1.16	0.82
Std Dev	1.76	1.71	0.95	0.74
Range	3 - 11	3 - 10	1 - 2	1 - 2

Available Network Members and the Type of Functional Support They Gave

Table 5-4 shows the network members who were utilized by the respondents for various forms of support. This table also shows the network members who caused conflict while endeavouring to help. Some network members were available to provide certain types of support only.

Table 5-4 Available Network Members by Type of Support or Conflict (N=50)

Network Function	Intimate Interaction	Material Support	Advice	Positive Feedback	Physical Assistance	Social Participation	Conflict
Husband	43	41	10	13	24	26	32
Friend1	28	11	28	22	42	43	2
Friend2	24	10	23	18	36	40	
Friend3	14	8		17	35	32	2
Professional	9		32	31	1	1	
Sister-in-law	7	3	6	6	14	6	9
Mother-in-law	9	4	9	7	12	2	8
Mother	6	2	8	3	9	3	2
Father-in-law	3	5	2	2	3	2	
Sister	5	3		2	6		
Nanny					7	5	2
Brother-in-law	2		1	1	4	2	2
Brother				1	3		
Father				2	1		
Grandmother					2		1
Son	1	1			1	1	

Network Members Utilized for Type of Support

Table 5-5 presents individuals who were identified by the respondents to have actually provided support in the listed support functions or caused conflict after childbirth. Husbands were more involved with the provision of material support and intimate interaction. However, husbands and in-laws were more likely to, and did, cause conflict. Friends provided the greatest amount of social participation, while professionals were the greatest source of advice and feedback. With respect to physical assistance, friends, husband and mothers-in-law were more frequently mentioned with husband obtaining a greater frequency than the in-laws, mothers and sisters.

Table 5-5 Utilized Network Members by Type of Support or Conflict (N=50)

Network	Intimate Interaction	Material Support	Advice	Positive Feedback	Physical Assistance	Social Participation	Conflict
Husband	34	41	7	6	18	11	26
Friend1	11	4	18	16	40	18	1
Friend2	5	3	12	12	34	15	1
Friend3	2	1	6	7	32	8	
Professional	7		31	30	1		
Sister-in-law	3		4	4	6	2	6
Mother-in-law	4	2	7	3	12	2	6
Mother	3	2	6	4	8		1
Father-in-law		4	2	1	3		
Sister		2		1	6		
Nanny					6	2	
Brother	1		1	1	3	1	
Brother			1	1			
Father		1		1	1		
Granny					2		1
Son		1			1	1	

Characteristics of the Network Members

The respondents were asked about their relationship with their network members with regards to age, gender, and their ethnicity. Table 5-6 depicts the relationships of respondents with their network members. Generally, network members of respondents included relatives, in-laws, friends, and professionals. Friends (46%) followed by husbands (17%) were mentioned most frequently by respondents as their network members.

Table 5-6

Frequency Distribution: Network Members' Relationship to the Respondents

Network Member	Frequency (N=280)	Percentage (100)
Husband	49	17.0
Friend 1	46	16.2
Friend 2	44	15.4
Friend 3	38	14.4
Professionals	35	13.4
In-laws	40	15.2
Mother	10	3.2
Sister	6	2.0
Baby Sitter/Nanny	5	1.4
Brother	3	1.0
Father	2	0.4
Grandmother	1	0.2
Son	1	0.2

Table 5-7 depicts the age of the respondents' social support network members. The age of respondents' network members ranged from 15 to 70 years. Seventy-eight network members were within the age range of 25 to 29 years. In addition, most network members (193/280) were female.

Table 5-7

Frequency Distribution of the Age of Respondents' Network Members

Age Range	Frequency (N=280)
15-19	5
20-24	36
25-29	78
30-34	66
35-39	18
40-44	4
45-49	22
50-54	9
55-59	13
60-64	9
65-69	6
70 and above	6
Don't Know	8

With respect to ethnicity, an overwhelming majority (87.4%) of respondents' network members were Sikh Punjabis and 12.6% were non-Punjabis. Table 5-8 shows the ethnic distribution of the network members mentioned by the respondents.

Table 5-8

Frequency Distribution: Ethnicity of Network Members

Ethnicity	**Frequency (N=280)**	**Percentage**
Punjabi	241	87.4
Canadian	27	9.0
English	3	1.0
Filipino	3	1.0
Vietnamese	3	1.0
Chinese	1	0.2
Hindu	1	0.2
Jamaican	1	0.2

Satisfaction Scores for Type of Support Received

Overall, almost all respondents were moderately to very satisfied with the support they utilized. The mean scores for intimate interaction (N = 47) was 6.34, a standard deviation of 0 .66 and with a range of 5 to 7. Satisfaction scores (N = 45) for material support were, mean 6.72, standard deviation of 0.50 with a range between 5 and 7. Satisfaction scores (N = 50) for advice were, mean 6.68, standard deviation of 0.71 with a range between 4 and 7. Satisfaction scores (N = 50) for positive feedback were, mean, 6.72, standard deviation 0.60 with a range from 4 to

7. The scores for physical assistance (N = 50) were, means 6.80, standard deviation of 0.60 and a range from 4 to 7.

Total Satisfaction Scores of Support Received from Social Network Members

Total satisfaction was based on the sums of all scores on the various support functions. The frequencies, mean, standard deviation , and ranges of the total satisfaction scores appear in Table 5-9.

Table 5-9

Total Satisfaction Scores*

Value	**Frequency (N=42)**	**Percentage**
35	11	22.0
34	17	34.0
33	13	26.0
32	3	6.0
31	2	4.0
30	1	2.0
29	1	2.0
27	2	4.0
Mean 33.26	**Std Dev** 1.83	
Median 34.00	**Minimum** 27.00	
Mode 34.00	**Maximum** 35.00	

* Scores recoded to account for missing data.

Relationship Between Social Support and Health Relationship Between Network Size and Perceived Health Status

In order to investigate the group differences in network size analysis of variance and Scheffé multiple comparison test were performed. The ANOVA procedure tested the hypothesis that there were no differences among the three health status groups with respect to available network size and utilized network size.

The ANOVA results shown in Table 5-10 indicate that health status groups were significantly different in the size of their available networks (f = 7.27, df = 47, P <.01) as well as the size of their utilized networks (f = 6.58, df= 47, P < 0.01). The Scheffé multiple comparison test indicated that the women in the low and medium health groups had smaller networks than women in the high health group at p <.05. Similarly, the Chi-square results indicated that there was an association between employment and the perceived health status (chi-square= 7.8; p < 0.05), indeed 10 of 13 employed respondents were in the perceived high health group.

Using the Chi-square tests, no significant relationships were observed between mothers' perceived health status and (a) their problems with previous pregnancies, (b) sex of their child (c) their preference with respect to gender of the child.

The Scheffé test (1.49) indicated significant differences between low and medium health on one hand, and high health on the other, with respect to the age of the baby at P <0.05 level. Finally, the age of the baby showed a significant relationship with health status (f = 6.95, df = 47, P < 0.02).

ANOVA results showed no significant differences among the three groups with respect to the following variables: experienced conflict, respondent's age, and the duration of the marriage. However, mothers in the high health group had infants who were significantly older than mothers in the low or medium health groups (f= 6.95, df = 47, p < .01).

Table 5-10

Relationship Between Respondents' Work Status and Their Perceived Health

Health status	**Employed**	**Unemployed**
Low health	1	12
Medium health	2	13
High health	10	12
Total	13	37

Chi-square = 7.8**
(** significant at 0.05 Level)

Table 5-11

Relationships Between Social Support Variables and Health Status

Variable	Bartlett-F	DF	F Ratio	P Level	Scheffé Test (0.05)
Available network size	0.442	47	7.272	0.002	1.110 *
Utilized network size	3.903	47	6.581	0.003	1.094 *
Satisfaction recoded	0.239	42	3.279	0.072	1.235 *
Age of baby	0.176	47	6.947	0.002	1.494 *

* Denotes significance at $p < 0.05$

Table 5-12

Comparison of Health Status Groups

	Low Health N=13		Medium Health N=15		High Health N=22	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Size of Available Network	4.92	1.04	5.33	1.18	6.81	1.99
Size of Utilized Network	4.77	1.17	5.27	1.03	6.59	1.97
Satisfaction with Support	32.08	2.58	33.80	0.86	33.59	1.88

Relationship Between Satisfaction With Support and Perceived Health Status

Analysis of variance and Scheffé multiple comparison were used to test the hypothesis that there were no differences between health status groups with respect to their satisfaction with support. The groups did differ significantly on their satisfaction with support scores f = 4.08, df = 39, p< 0. 01). A Scheffé test (1 .21) showed that women in the low health groups were significantly less satisfied with their support than women in the median health groups at p < 0 .05.

CHAPTER 6

DISCUSSION AND CONCLUSIONS

The present data are congruent with the theory of social integration which Meyers, Lindenthal & Pepper (1972) defined as individuals integrating into the larger social system. The purpose of the study was to describe the relationship between social support and the health status of immigrant Punjabi Sikh women in Edmonton. Operationally, the perception of health status is defined as how well the mother says she feels at a particular point in time, as measured by the Cantril Self-Anchoring Striving Scale (SASS). The population for the study was Sikh Punjabi mothers who had delivered babies within the past year and lived in the Millwoods area of Edmonton, Canada. Punjabi Sikh mothers were recruited from the Sikh Temple. To ensure anonymity and confidentiality, all instruments were assigned an identification number. Throughout the study, only the assigned code was used. After data collection concluded, data were coded, entered in the computer, and processed using the Statistical Package for Social Sciences (SPSS). The SPSS was then employed to analyze the data to generate descriptive and inferential statistics. The three health groups were compared with respect to the size of available, utilized networks and their satisfaction with network members. Field notes were used by the researcher to aid in interpreting the statistical analyses.

In discussing the findings of this study, the characteristics of the mothers who participated in the study will be described. Finally, the results of the analysis of variance (available and utilized), and total satisfaction scores will be discussed.

Description of the Participating Mothers

The total number of mothers who participated in the study was fifty. Of these, 82% were between the ages of 21 to 29, 16% were between the ages of 30 to 39, and 2% were above 39 years. Clearly, the large proportion of study respondents were in the younger age groups, and there were comparatively few mothers in the older age category. Most women (92%) stated they did not experience difficulty getting pregnant; 68 % had one pregnancy and 16 % had more than one pregnancy. Ninety-four percent stated they did not experience difficulties with their pregnancies.

While the research did not intentionally set out to be selective of the women in the study beyond ethnicity, it turned out that the respondents in the study were primarily well educated. Of the fifty respondents in the study, 33 (66%) had some university or post secondary education. Of these, thirty-six percent had a Bachelors' degree, 18% had a special diploma, 10% had a Master's degree, and one (2%) was a physician. For a Punjabi Sikh woman, the purpose of education is for her personal development and for the welfare of her children. Mothers are expected to be knowledgeable in order to effectively socialize their children. Education for a woman in India does not change her role in the family system. A woman is expected to play a subservient role or status to her husband in all circumstances (Hershman, 1981).

The distribution of respondents' employment status indicated that a small proportion (26%) were employed. The findings could be attributed to the Punjabi culture which confines women to the home. A woman works outside the home only with her husband's or her in-laws' consent. Otherwise they are restricted to domestic duties. The Punjabi culture maintains that a dignified man's wife does not earn any income (personal communication with a professor from India, 1993). Furthermore, it is not uncommon for the majority of Punjabi women to be uninformed about their husbands' income. Most respondents stated that, "Men don't tell their wives how much they earn."

As Punjabi Sikhs, especially the husband and his family value male children more than female children, it was not unusual that a large proportion of respondents stated that it was more important for them to have male children. The rationale for this statement could be influenced by cultural imperatives. In a majority of patrilineal societies, the birth of males is crucial to the ideologies of the social group and could have diverse implications for one's family life. Drakulic and Tanaka (1981), reported that among the East Indians, a woman who has a boy receives better attention and support from her husband and his family than the one who has a girl. They concluded that among the East Indians, "having male children is considered a blessing to the family" (Drakulic and Tanaka, 1981 p.26). In this research respondent whose first-born child is a girl states that:

> . . . there is not much pressure about it being a boy. But, eventually, I think my in-laws would have liked at least one grandson.

Such a comment serves to emphasize the similar importance of male children among the Punjabis and is in accordance with the findings of Drakulic and Tanaka (1981).

The length of the respondents' stay in Canada was an important factor in determining their access to social support, their satisfaction with the support they might receive, and their perceived health status. Although the Canadian immigration laws allow permanent residents to sponsor their relatives to Canada, the majority of the respondents were in Canada without their extended family. Fifty-four percent of the respondents resided with their husbands while 46% resided with their husband and in-laws or husband and extended family. The findings suggest that

Punjabi Sikhs are more likely to manage their lives without their extended family, when they emigrate. Undoubtedly, the lack of the extended family to which Punjabi Sikhs are accustomed would limit their accessibility to a more wide ranging social support.

Composition of Social Support Networks

Husbands and friends were the main sources of support for the respondents, mostly coethnics, and were of a similar age or older. These findings are congruent with those of other studies like Heller and Norbeck (1985) who reported that demographic variations such as age, sex, and marital status affect access to and use of social support and the composition of the social network.

It seems practical that the respondents would associate with those social network members who share similarities in ages and developmental stages. Kahn & Antonucci (1980) reported that the types of support and network are contingent upon the different stages of the life cycle. Richardson, and Kagan (1979) and Cronenwett, (1985b) also shared this view about the social network. These authors indicated that there were differences in the social resources that were helpful during the course of coping and adjustment to life experiences such as parenthood. Similarly, respondents were more likely to associate with network members who were of the same gender and ethnicity. These findings support those of other researchers like Meleis (1990) and Aroian (1990, 1992) who found that immigrants tend to choose network members with whom they have much in common. Pearson (1979) indicated that an affinity for the adherence to one's cultural group eases communication. According to Drakulic and Tanaka (1981), East Indian women were more receptive to individuals who spoke the same language or dialect, and were of similar gender and ethnic background. Aroian (1990) found that persons who come from the same country and are of a similar culture are a good support network for immigrants in their host country.

Husbands formed the largest proportion of network members who were available and were utilized for material support. A possible explanation for husbands being the main source of material support is based on the dominant role played by males in the East Indian culture (Assanand et al., 1990). The roles of males in the family includes responsibility for the family's material welfare. A respondent explained the traditional role of a husband as:

> . . . it is the man's responsibility to provide for all his wife's needs and that of his baby. I am not supposed to borrow anything from anybody for myself or for the baby.

Another respondent stated

> . . . I received gifts of money and baby clothes from my friends, the Punjabi Women's Association, the East Indian Women's Association, and the Sikh community.

With respect to the source of intimate interaction of the respondents, Drakulic and Tanaka (1981) reported that in India, it is the normal practice for the males in the family to determine the relationship of female family members with others. East Indian women feel that it is inappropriate to express their feelings directly, and they normally express their concern through the men in the family. One respondent felt that it is only appropriate to interact intimately with her husband saying:

> . . . regardless of all the friends available, I would consider my husband to be the focal point of intimate support.

These findings support those from other researchers. Kenneth (1989) found that family ties were most useful for long-term commitments, particularly those relating to the provision of material, physical assistance, and emotional support.

Among the Punjabi Sikhs it is not uncommon for people to interact intimately with their friends. The respondents in this study were quite comfortable with their friends who might have been more readily available than husbands. The respondents who had friends available for intimate interaction were in the high health status group. These findings are also important because there appears to be a comparable environment to that of the respondents in their home country. Drakulic and Tanaka (1981) reported that in India other women in the immediate environment provide companionship to their colleagues, whose roles tend to be centred around the home. However, the findings were different from what was reported earlier by Drakulic and Tanaka (1981). These authors had reported at that time that East Indian women did not usually receive similar attention from friends in Canada. Further these results are congruent with those reported by Kenneth, (1989) who observed that non-kin ties, such as friends, yielded positive health outcomes and were equally important sources of support. Kenneth (1989) reported that the mothers' relationships with friends and neighbours influenced their role functioning through access to emotional and material assistance, provision of childbearing information, and availability of role models. Cronenwett (1985a) also reported that, in a Western society, women receive a greater amount of emotional support from friends. Caplan, Robinson & French (1976), found that non-kin ties contributed to individual and family health especially during the transition to parenthood, childbearing, and in the establishment of positive health behaviours.

With respect to the source of support for advice and positive feedback the findings seem to indicate that respondents utilized more professional source of advice and feedback rather than relying on their extended family and in-laws. This appears to be the case even for those respondents who resided with their families and in-laws. Mercer (1986) stated that the mothers' behaviour is dependent on the feedback they receive from people in their social network. However, this finding is unusual among the Punjabi Sikhs, as East Indians usually seek hospital care only when they are experiencing difficulties (Drakulic, 1981). In addition, the extended family becomes the major influence on an individual's response to health care (Drakulic & Tanaka, 1981).

There may also be some factors that influenced the respondents' choice of professionals, for advice. Culturally, Punjabi Sikhs do not compliment persons especially after child birth (Hershman, 1981; Assanand et al., 1990). Visitors are not allowed to compliment or admire the baby to excess, for fear of the harmful effects of the "evil eye". Professionals were probably considered as neutral people and alien to their culture hence they would not be familiar with the concept of the "evil eye".

Other factors may include the level of education, the length of their stay in Canada, and whether or not they have families in Edmonton. These results could have suggested that childbearing advice from kin varied less in content than did the advice from non-kin (Riley & Cochran, 1985). One respondent commented:

> . . . after four weeks, I read brochures and some literature about parenting. I am usually confused with pieces of advice from relatives and friends, as they tend to conflict with professional advice.

Nannies were more likely to be utilized for physical assistance and social participation. Respondents who utilized their nannies for physical assistance and social participation were in the high health category. However, the reasons that nineteen respondents failed to utilize social participation could be three-fold: (a) respondents might not have understood the question, (b) there could be cultural reasons, or (c) perhaps respondents were not sufficiently healthy enough to engage in social participation.

These findings also suggest that some support members perform certain support functions in certain situations only. This notion was supported by some of the comments recorded in the field notes.

> . . . persons who helped me varied as days go by after I have had my baby. A nurse visited me three times when I came home. She offered some advice and responded to some questions pertaining

> to breast feeding. My sister-in-law was responsible for the chores while I observed my 40 days compulsory rest. After three months, my mother-in- law helped me with the work at home, as every body worked outside the home. My husband also hired help to baby-sit and run some errands for me.

Another respondent said:

> . . . friends helped me with household duties for four weeks after I had my baby. Afterwards, I was left alone to manage without any other forms of help at home. My husband is too busy to help. Besides, he is a typical Indian man; he will not even lift his own hand when he returns home after work or when he does not work during weekends.

For many women, the first pregnancy seemed to be the most stressful, and the experience gained from it was functional in subsequent ones. As one respondent expressed:

> . . . after the birth of my first child, my mom helped me during the first month. After that, I have been by myself. For the first child I needed to know everything about child care, so I asked my mom, my senior sister, and the doctor or nurse. But, for this second child, I have to depend on my previous experience.

Health Status of Respondents

Findings on the size of social network support Durkheim's theory of social integration tested by Meyers, Lindenthal & Pepper (1975). Social integration theory holds that integration within the social system is crucial for the individual's well-being. Persons who are well integrated into the social system would be better able to cope with the impact of stress than those who are not well integrated (Meyers et al. 1975). The authors reported that persons who had ready and meaningful access to others, feel integrated into the system, and are satisfied with their roles seem better able to cope with the impact of stress. Whereas the low health mothers in the low group were found to be less integrated into the social system (as defined by the size of their networks), the high health mothers were found to be highly integrated into the social system (as defined by a large network size).

While social integration cannot be equated with social support, the implication is apparent that social support, as an aspect of social integration increases a person's coping ability. By so doing, social support may act as a stress buffer against ill-health by reducing the perception of parenthood as stressful. Despite the appeal of the buffering role of social support, this study supports the idea that the larger the social network a postpartum mother has access to, the less likely she would be to experience ill-health.

In his discussion of the interaction of social support with environmental stress, Cobb (1976) stated that social support facilitates coping and adaptation to change and concludes that the most attractive theory about the nature of this phenomenon involves pathways through facilitation of coping and adaptation.

Caplan (1974) offers a similar typology that social support enhances individual coping ability. He suggests that significant others help the individual mobilize his psychological resources and master his emotional burdens (p. 6).

Relationships Between Network Size and Perceived Health

This section discusses the perceived health groups with respect to social support network size, available and utilized network size, conflict experienced, satisfaction with social support and the characteristics of the respondents and their perceived health status. Significant differences were found among the three health status groups on total available network, utilized network, and satisfaction with social support. This research findings on the size of social networks support theory of social integration.

Relationships Between Available Network Size and Perceived Health

Women in the high health group had larger available and utilized networks. There were differences among the three health groups of respondents with respect to the number of persons available to help them when they were in need of help in any of the social support functions. The Scheffé test indicated that differences between the groups existed among the three health groups with respect to available network size. Thus, respondents who exhibited better health had larger available networks. The findings seem reasonable because the more people one had available to help in time of need, the less stress a respondent may have perceive and the more healthy the respondent was likely to be. Available network size appeared to have a positive effect on the satisfaction and psychological well-being of the Punjabi Sikh mothers. The results have confirmed those of other researchers. House, (1981) has found that the larger the network size the less stress the individual experienced as network members helped individuals to decrease the stressor or provided the comfort to feel less anxious when they knew that they were not alone. Aroian (1992) also found that having available a larger number of persons from the same country and of a similar culture facilitated the immigrants' adaptation and contributed to their psychological health by preventing the stress associated with immigration.

A large available network size of easy access was found to be important for the well-being of the Punjabi Sikh mothers. The results of this study suggest a positive association between available network members and respondents' health status.

Relationships between Utilized Network Size and Perceived Health

In an attempt to determine the respondents' social network members (available, and utilized) for the respective support functions, most of the respondents were unable to report without specifying the period of time. It may be that the questions were not clear. Perhaps it would have been easier to indicate specific time frames that different network members were utilized.

The ANOVA procedure tested the null hypothesis that there were no differences among the three health status groups with respect to total utilized network size, and revealed significant differences in the groups with respect to the total network members utilized by the respondents. These findings support those of other researchers. Kenneth (1989), Richardson and Kagan (1979) also reported better psychological outcomes among couples whose social networks were larger and more varied in the membership and kinds of support. Sokolovsky and Cohen (1978) also reported that utilized network size and density were positively associated with mental health.

Relationships Between Negative Aspects of Social Support and Perceived Health

The respondents' health status relating to the conflict experienced from their husbands and in-laws contradicted the literature in this area. There was no difference among the groups with respect to the amount of conflict experienced. It might be expected, on the basis of the literature the negative aspect of social support (Barrera, 1981), conflict would negatively affect the perceived health status of the respondents. It is not clear why the respondents did not differ in health with respect to conflict experienced from their husbands and in-laws. The findings were somewhat different from those of other researchers. Barrera (1981) found that network members are also sources of stress. As stress has been found to be harmful to health, the respondents' health status could have been negatively affected. On the other hand, the findings could suggest that the respondents tended to focus on their negative feelings, as it is known that in-laws are a source of stress in families. It may be that the focus on the negative rather than positive feeling about their in-laws overwhelmed the respondents. They may also have possessed more positive feelings than they perceived that may have attenuated the effects of stress from their in-laws.

On the other hand, it might be expected on the basis of the Indian culture that in-laws become over-bearing especially after the birth of their grandchild. The rationale for the attitude of the in-laws could be culturally bound. In patrilineal societies such as that of the Punjabis, the family regards the woman as the property of the kin group (Masi, 1988). As such, she has her own obligations, such as reproduction and the care of the home, preparation of meals, laundry etc, (Assanand et al., 1990). Consequently, the patrilineal family becomes protective of their children, whom they regard as their social security when they grow old and as perpetuators of the lineage (Assanand et al., 1990).

More likely, the nonsignificant results of the conflict could be due to the small size of the network members who caused conflict. The amount of conflict might not have been sufficient to produce any effect on the health status of the respondents. This finding should therefore be interpreted with caution.

Relationships Between Satisfaction With Social Support and Perceived Health Status

Satisfaction levels differed among the groups. Women in the low health group were less satisfied with the support received than those in the medium health group. Respondents with low health status had significantly lower satisfaction scores when compared to those in the medium health group. There were differences in the health status of the respondents with respect to the satisfaction with support functions such as intimate interaction, advice, positive feedback, and physical assistance. The satisfaction rates of the subjects also differed according to the support functions. It appears that physical assistance was of greatest importance while social participation was of least importance. Overall, almost all respondents were moderately or very satisfied with the support utilized. Those in the low health group were more satisfied with material support and physical assistance than with intimate interaction. Respondents in the medium and the high health groups however, showed greater satisfaction scores with respect to advice, positive feedback, and physical assistance. There were few respondents in the low health group who had very low satisfaction scores with respect to advice, and positive feedback.

In relation to intimate interaction four of the five respondents who did not rate their satisfaction with intimate interaction were all in the high health group; one was in the low health group. The findings suggest that the question soliciting this information might not have been clear to the respondents. Also they might consider it improper to rate their satisfaction with intimate interaction.

Those three respondents who did not rate their satisfaction with material support might have been inclined to consider the support as an obligatory expectations of their husbands. Culturally, it may not be proper to rate their satisfaction, as they have no control over their own lives. Consequently, they may not wish to rate their satisfaction with the support received from their husbands.

In relation to social participation, it was found that a large number of the respondents were unable to engage in any social participation, and did not have satisfaction scores for this subscale. From this findings, one may imply that some respondents did not seem to need any leisure time as defined by the Arizona Social Support Interview Schedule. For instance, nineteen respondents did not utilize social participation. It is difficult to explain this finding, the researcher attempted five possibilities: (a) It appears as though child care occupied so much of their time that no free time was available to pursue leisure, (b) It may be that the questions for this subscale were unclear. Perhaps it would have been easier for the respondents to indicate what they do for leisure rather than asking them for their network members for social participation. It is likely that the respondents had different concept of what is important to their well-being, (c) It could be that the respondents' current health was not adequate for attainment of social participation, (d) On the other hand it could be a cultural issue that mothers do not take part in leisure outside the home. (e) It may also be that the time for leisure was taken for granted because social participation is such a natural part of life that it could easily be overlooked. This finding is a major concern, since leisure is a means to achieving good health. Further research is necessary to find out how leisure or social participation affects a Punjabi Sikh mother before conclusions can be drawn about these mothers. The respondents did not necessarily appreciate help that was not of great importance to them. In this particular group of respondents leisure was not an area of great concern. However there was no negative reflection on this aspect of their lives regarding their health status. Generally, they seemed to be satisfied with physical assistance, material support, and personal associations.

In relation to the overall satisfaction of the respondents, there existed differences in the health scores of the respondents. The results of the Scheffé test show that the low health group is significantly different from the medium health group with respect to total satisfaction scores. However, caution should be used in drawing any conclusions. Low Bartlett values may be an indication that homogeneity assumptions were not met. This may be due to the fact that the social participation subscale was dropped and the missing data for the material and intimate interaction subscales were recoded with the means scores of the sample to replace the missing data. It is difficult to attempt to accurately assess the respondents' satisfaction with the support from their in-laws and husbands. It could be that the Punjabi Sikh women simply feel that things are the way they should be. Although most of them were satisfied with support they had received from their network members, especially their in-laws, it is possible that they provided socially desirable rather than valid responses. A comprehensive assessment of the respondents' satisfaction would require another study. However, there appears to be an intrinsic relationship between satisfaction with support and the health status of respondents.

The Scheffé test showed significant differences between low and medium health and high health with respect to the age of the babies. Respondents who had infants less than six months old, were more likely to perceive low health whereas those whose babies were more than six months old, were likely to perceive high health status. The findings suggest that the respondents with infants who were less than six months old experienced more stress in their parenting role. Some respondents described the stress experienced after childbirth to include worry about their infant crying, sleepless nights from nursing the baby, and pain related to perineal wounds. One respondent described her experience stating:

> . . . My baby cried too much at night and no advice seemed to work. There seemed to be no comfortable position at my disposal to adequately feed this poor girl because of a cut below. The baby was almost starving. Anyway, it was a great relief to realize how her crying reduced as she grew older.

Studies relating to the experience of mothers after childbirth were carried out by Fawcett (1988) and Pridham (1988), who reported that the post-partum period was associated with stress. Russel (1974), Hangsleben (1983), concur with the literature where it has been demonstrated that social support is associated with both the physical and mental well-being of the mothers. The majority of Punjabi mothers interacted positively with their social network members and perceived a high health status. Sheehan (1981) reported that common types of stressful experiences during the post-partum period were found to be associated with emotional problems, physical exhaustion, and despondency. However, it is interesting to note that this finding was not different from the experience reported by Harrison & Hicks (1983) which states that the birth of a baby is a major life change from which full recovery can take more than six months.

It would appear from the respondents' reports that some of the support received from their social network members were satisfactory in that it resulted in the attainment of satisfaction and good health.

Significance of the Study

The results of this study will help nurses in maternal child health to tailor their care to better work with mothers who have special needs. Once the social network of a particular client group is identified, these findings will contribute to the cross-cultural literature related to social support as a primary prevention measure. The knowledge about the sources of social support for Sikh Punjabi mothers will enable nurses to be more effective in working with mothers in setting priorities and planning to deal with the challenges associated with a new baby in the family.

The study provides some evidence for the importance of including friends in the perinatal care of immigrant Sikh Punjabi women. The study also shows that if more persons are involved in helping mothers with younger infants, they will perceive a better health status.

These findings will be important to other suppliers of health services to women in repressive societies or minority cultural groups where the indigenous forms of support like the extended family is non-existent. In such cases nurses need to understand the importance of exploring with the family the availability of nontraditional but effective support networks. In this research husbands were found to be supportive in providing material and intimate interaction. Therefore, nurses can assist husbands in recognizing the importance of their roles in providing emotional support, sharing child care and household responsibilities. The research findings related to support should be incorporated into the family health and obstetrical nursing curricula. In this way, nursing students will be encouraged to practice routinely assessing their obstetrical patients' support systems, as well as their maternal health status. Inclusion of the research findings in nursing educational curricula will enable health professionals to become aware of their role as partial members of the support network that is so vital to mothers. As professional support, they may encourage more effective support from the mothers' spouse, family, and friends. The benefit of such support will likely be seen not only in the mother's health, but also in the well-being of the infant and the rest of the family members who constitute the support group.

Recommendations for Further Research

Although this research has identified the sources of support for Immigrant Punjabi Sikh mothers, what is not clear is what makes a helpful social network member. There is the need for further research to explore why Punjabi Sikh mothers identified certain persons as their network members.

The significance of missing data due to mothers not responding to the social participation subscale may indicate a gap between needs and resources. For the extended family provides vital support to immigrant mothers, who have relied on this resource. Therefore a mother who is alienated from her family may have special needs which may be unmet. Further research is required to determine the needs of the Punjabi Sikh mother after child birth. There is also the need to determine if a perceived need for social support predicts a mother's satisfaction with support received.

In this study, the mothers' satisfaction levels were was assessed at only one point in time. A detailed and precise study of the type of support suitable for this population over time is needed. There is the need for further research on possible differences in satisfaction with available and utilized support. This study shows that certain types of support functions are more important, and therefore utilized under different circumstances than others. Thus, there is a need for further research on the types of support that are available and utilized in different situations.

To fully understand Punjabi Sikh immigrant women's satisfaction with support, individual differences among mothers must be considered; and to promote their attainment of satisfaction with their support, nurses need to intervene in ways that promote healthy behaviours. This might require an intervention research to involve attracting friends of immigrant mothers in health education programs, and focus on the behaviours of the mothers themselves.

This study has also revealed that Punjabi mothers do not feel comfortable responding to interview questions with the presence of their in-laws. Future researchers may consider a neutral ground when conducting research on this group of women as this may be more relaxing for the Punjabi Sikh mother.

Limitation of the Study

One limitation of the study is the fact that the sample consisted of a small sample of immigrant mothers who were selected on a convenience basis and who may not be representative of the population under study. Thus, the results of this study given the small, non-representative sample used, cannot be generalized to any other group of mothers or to any other ethnic group. Findings are also limited to Punjabi Sikh mothers.

The omission of the social participation scale and recoding missing data with the means of the sample is another limitation. The results are not comparable to findings with researches where the entire Arizona Social Support interview Schedule was used. Interviewing at home was also a limitation. Since discomfort was expressed with the presence of in-laws, it is possible that respondents who had their in-laws present provided socially desirable responses as opposed to responding in a manner that befitted the questions. Findings on Punjabi women's satisfaction with support should therefore be interpreted with caution.

The satisfaction scores seem to indicate that respondents have either the same or similar satisfaction rates with the support provided and utilized by network members. The ASSIS ignores the fact that respondents could have differing perceptions of the support provided by individual network members.

The Arizona Social Support Interview Schedule (ASSIS) is based on the assumption that the social support received must either be satisfactory or not satisfactory. The instrument did not make provision for respondents who did not receive some functional support; hence, the problem with a substantial amount of missing data. With regard to the ASSIS there are a few methodological points to be noted. Specifically, the satisfaction scores were based on support utilized by the respondent. The satisfaction scores appear to be based on an intrinsic assumption that network members would utilize the support available, and hence be able to rate their perception of support or satisfaction. Because ASSIS rates support from "not satisfied" to "very satisfied," it was difficult to rate support satisfaction for respondents who have not utilized support functions, such as intimate interaction and social support. Hence, such "no rating" scores, as the researcher was compelled to refer to them, had to be deleted or recoded.

The study is also limited, in that the data reflect the mothers' perception of health at only one point in time. This is a limitation because it is possible that the subjective mood of the respondents of the interview affected the results. Since pleasurable feelings are a function of the psychological state of the person and may vary from day to day, the respondents' reports relating to their health status may have been determined by the emotional state of the respondents at the time of the interview.

Summary and Conclusion

Immigrant mothers with infants under one year of age are under stress, and require suitable sources of support in order to protect their health and promote their well-being and that of their infants. However, for various reasons, perhaps conceptual and methodological, there has been a lack of data on immigrant mothers' social support networks and their satisfaction with the social support received from their networks. In this study, research objectives regarding the reported source of support, perceived health status, and the satisfaction with support of a selected immigrant population in Edmonton were formulated, in light of Barrera's concept of social support.

Barrera's conceptual framework for social support provided a useful, comprehensive framework for the study of the satisfaction with support of 50 Punjabi Sikhs mothers who have had a child within the past year. The results obtained were examined in light of the framework. Possible reasons for the nature of the network members, the health status of the mothers, why their negative interactions did not seem to have adverse effect on the health of the mothers, and their satisfaction with social support were discussed. Possible reasons for the non-utilization of social participation, and the failure to rate their satisfaction with material and intimate interaction were also discussed.

The results of this research on support as perceived by the Punjabi Sikh women support the Durkheimian theory of social integration which purports that persons who are well integrated into the social system would be better able to cope with stress than those who are not well integrated. In this study, immigrant mothers are more likely to involve friends in their quest for support. The study provides evidence for the importance of including friends as identified by mothers in the perinatal care for immigrant

Sikh Punjabi women. The data suggest that mothers who use social support will likely benefit from that support. Evidence for the existence of relationships among network structure, the satisfaction with support, and the perceived health status of immigrant postpartal mothers has been gained as a result of this study. The findings demonstrate that the availability and satisfaction with social support, the network size, and the age of the baby all contribute to the mothers' health and well-being. Although perception of support buffers stress and determine health outcomes (Wethington & Kessler, 1986), this study has found that available and increased network size ultimately contribute toward a better perception of health. Thus, both forms of support need to be considered by health professionals.

The significance of missing data of social participation may indicate a gap between needs and resources. Because of the importance of the extended family to immigrant mothers, and the reliance of mothers on their families as a resource (Cronenwett, 1985b, Pridham, 1988), a mother alienated from her family may have special needs. The results of the study cannot be generalized because a small non-representative sample was used, the mothers' satisfaction level was assessed at only one point in time. A detailed and precise study of the type of support suitable for this population is needed.

To fully understand immigrant women's satisfaction with support, individual differences among mothers must be considered; and to promote their attainment of satisfaction with their support, nurses need to intervene in ways that promote healthy behaviours. This might involve attracting friends of immigrant mothers in health education programs, and focus on the behaviours of the mothers themselves.

From the findings of this study it could be concluded that, the probability of using available support appears to be a function of one's perception. Obstetric nurses, therefore, need to make concerted efforts to get their postpartum clients to perceive their environment as supportive. The absence of a supportive environment and the failure to use existing support systems is not healthy for the postpartum immigrant mother. Although this study cannot be generalized to other populations it shows that the satisfaction with support on immigrant's mothers' health contributes to the knowledge of perceived support and raises questions for further research in identifying strategies to provide support for the needs of immigrant mothers for further research in identifying strategies to provide support for the needs of immigrant mothers.

REFERENCES

Abriola, D. V. (1990). Mothers' perceptions of a postpartum support group. *Maternal-Child Nursing Journal* *19*(2), 113-131.

Aaronson, L. S. (1989). Perceived and received support: effects on health behaviour during pregnancy. *Nursing Research*, *38*(1), 4-9.

Anderson, J. M. (1987). The cultural context of caring. *Canadian Critical Care Nursing Journal*, *(4)*, 7-13.

Andrews, G., Tennant, C., Hewson, D., & Vaillant. (1978). Life events, stress, social support, coping style, and risk of psychological impairment. *Journal of Nervous and Mental Disease, 166*, 307-315.

Antonovsky, A. (1978). Conceptual and metrological problems in the study of resistance resources and stressful life events. In B. Dohrewend and B. Dohrenwend (Eds.), *Stressful Life Events: Their Nature and Effects* (pp. 245-248). New York: Wiley.

Aroian, K. J. (1990). A model of psychological adaptation to migration and resettlement. *Nursing Research, 39*(1), 5-10.

Aroian, K. J. (1992). Sources of social support and conflicts for Polish immigrants. **Qualitative Health** *Research*, *2*(2), 179-207.

Assanand, S., Dias, M., Richardson, E., & Waxler-Morrison, N. (1990). *Cross-Cultural Caring: A Handbook for Health Professionals in Western Canada*. Vancouver: University of British Columbia Press.

Barrera, M., Baca, L. M., Christiansen, J., & Stohl, M. (1985). Informant corroboration of social support network data. *Connections, 8*, 9-13.

Barrera, M. (1981). Social support in the adjustment of pregnant adolescents. In Gottlieb (Ed.), Social *Networks and Social Support* (pp. 69-96). USA Beverly Hills: Sage Publications.

Barrera, M. (1980). A method for the assessment of social support networks in community survey research. Connections, 3(3), 8-13.

Barrera, M. (1980). Distinctions between social support concepts, measures, and models. American Journal of Community Psychology, 14, 413-445.

Barrera, M., Sandler, L. N. & Ramsay, T. B. (1981). Preliminary development of a scale of social support studies on college students. American Journal of Community Psychology, 9, 435-447.

Belle, D. (1982). The stress of caring. In Goldberg & S. Breznitz (Eds.), Handbook of Stress: Theoretical and Clinical Aspects (pp. 596-605). New York: Free Press.

Berkman, L, F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alamenda County residents. American Journal of Epidemiology, 117, 521-537.

Bhatia, S. (Ed.) (1987). Social Change and Politics in Punjab. New Delhi: Enkay Publishers PVT LTD.

Billings, A. G., & Moors, R. H. (1982). Stressful life events and symptoms: A longitudinal model. Health Psychology, 1, 99-117.

Boyce, W. T., Schaefer, C., & Utti, C. (1985). Permanence and change: psychosocial factors in the outcome of adolescent pregnancy. Social Science Medicine, 21, 1279-1287.

Brandt, P. A., & Weinert, C. (1987). Measuring Social support with the Personal Resource Questionnaire. Nursing Research, 9(4), 589-602.

Brown, G. W., & Harris, T. (1978). Social Origins of Depression: A Study of Psychiatric Disorders in Women (pp. 225-254). London: Tavistock.

Bruhn, J. G., & Phillips, B. U. (1984). Measuring social support: A synthesis of current approaches. Journal of Behavioral Medicine, 7, 151-168.

Bull M., & Lawrence, D. (1985). Mothers' use of knowledge during the first postpartum weeks. Journal of Obstetric, and Gynaecologic, Neonatal Nursing, 14, 315-320.

Cantril, H. (Ed.). (1965). The Pattern of Human Concerns. New Brunswick, NJ.: Rutgers University Press.

Caplan, G. (Ed.). (1974). Support Systems and Community Mental Health. New York: Behavioral Publications.

Casper, L. M., & Hogan, D. P. (1990). Family networks in prenatal and postnatal health. Social Biology, 37 (1-2), 84-101.

Cassel, J. (1976). The contribution of social environment to host resistance. American Journal of Epidemiology, 104, 107-123.

Clark, A. (1984). Culture Childbearing Health Professionals. Philadelphia: F. A. Davis Company.

Clark, A., & Dummer, M. (Eds.). (1984). Community Nursing: Health Care for Today & Tomorrow. Virginia: Reston Publishing Company.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Cohen, S., MacKay, G. (1984). Social support, stress and the buffering hypothesis: A theoretical analysis, in Baum A., Singer, J. E., & Taylor, S. E. (Eds.), Handbook of Psychology and Health, 4, Hillsdale, New Jersey: Erlbaum.

Cohen C. I., & Sokolovsky, J. (1978). Schizophrenia and social networks Ex-patients in the inner city. Schizophrenia Bull, 4, 546-560.

Cohen, S., & Wills, T. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Consolvo, C. A. (1986). Relieving parental anxiety in the care-by-care unit. Journal of Obstetric, Gynaecologic, and Neonatal Nursing, 15, 154-159.

Cronenwett, L. R. (1985a). Network structure, social support, and psychological outcomes of pregnancy. Nursing Research, 34(2), 93-99.

Cronenwett, L. R. (1985b). Parental network structure and perceived support after the birth of the first child. Nursing Research, 34(6), 347-352.

Decore, L. (1989). City Trends: the Millwoods story, Millwoods Town Centre City of Edmonton Planning and Building. The city of Edmonton Planning and Development: Official Opening, August 17, 1988.

DeSantis, L. (1989). Health care orientation of Cuban and Haitian immigrant mothers:implications for health care professionals. In Morse, J.M. (Ed.), Cross-Cultural Nursing: Anthropological Approaches to Nursing Research (pp. 69-89), New York: Gordon and Breach Science Publishers.

Diamond, M., & Jones, L. S. (1983). Social support: A view of theoretical integration. In P. L. Chinn (Ed.), Advances in Nursing Theory Development (pp. 235-249). Rockville, MD: Aspen System Corporation.

Dicharry, K. E., & Higgins, G. P. (1991). Measurement issues addressing social support with Navajo women. Western Journal of Nursing Research, 13 (2), 242-255.

Dohrenwend, B. S., & Dohrenwend, B. P. (Eds.). (1974). Stressful Life Events: Their Nature and Effects. New York: John Wiley & Sons.

Drakulic, L., & Tanaka, (1981).The East Indian family in Canada. Canadian Nurse, 24-27.

Eckenrode, J. (1983). The mobilization of social supports: some individual constraints. American Journal of Community Psychology, 11(5), 509-528.

Eckenrode, J., & Gore, S. (1981). Stressful events and social supports. In B. H. Gottlieb (Ed.), Social Networks and Social Support (pp. 43-67). Beverly Hills CA: Sage Publishing.

Employment and Immigration Canada. (1992). Immigration- Get the Facts (pp. 6-11). Edmonton.

Entwisle, D. R., & Doering, S. G. (1981). The First Birth: A Family Turning Point. Baltimore: John Hopkins University Press.

Engel, V. F. (1981). A study of the relationships between self assessment of health, function, personal temperament and time perception in elderly women. Unpublished doctoral dissertation, Wayne State University, Detroit.

Feggeter G., Cooper, P., & Gath, D. (1981). Non-psychotic psychiatric disorders in women one year after childbirth. Journal of Psychosomatic Research, 25, 369-372.

Fiore, J., Becker, J., & Coppel, D.B. (1983). Social network interactions: A buffer or a stress? American Journal of Community Psychology, 11, 423-439.

Frate, D. A., Cowen, I. B., Rutledge A. H., Glasser M. (1979). Behavioral reactions during the postpartum period: experiences of 108 women. Women's Health, 4, 355-371.

Garrity, T. F., Somes, G. W., & Marx, M. B. (1978). Factors influencing self assessment of health. Social Science and Medicine, 12, 77-81.

Gjerdingen, D. K., Froberg, D. G., & Fontaine, P. (1991). The effects of social support on women's health during pregnancy, labour and delivery, and the postpartum period. Family Medicine, 23(5), 370-374.

Gordon, R. E., & Gordon K. K. (1960). Social factors in prevention of postpartum emotional problem. Obstetric and Gynaecology, 15, 433-438.

Gottlieb, B. H. (Ed.). (1981). Social Networks and Social Support. Beverly Hills, CA: Sage.

Grossman, F. E., Eichler, L. S., Winickoff, S. A., Anzalone, M. K., Gofseyeff, M. H., & Sargent, S. P. (1980). Pregnancy, Birth and Parenthood. San Francisco: Josey-Bass.

Gore, S. (1978). The effect of social support in moderating the health consequences of unemployment. Journal of Health and Social Behaviour, 19, 157-165.

Hall, A., & Wellman, B. (1985). Social networks and social support, in Cohen, S., & Syme, S. L. (Eds.). Social Support and Health. Orlando, FL: Academic Press.

Hammer, M. (1981). "Core" and "extended"social networks in relation to health and illness, Social Sciences and Medicine, 17, 405-411.

Harrison, M. J., & Hicks, S. A. (1983). Postpartum concerns of mothers and their sources of help. Canadian Journal of Public Health, 74, 325-328.

Henderson, J. D., Sampselle, C., Mayers, F., & Oakley, D. (1992). Towards culturally sensitive research in a multicultural society. Health Care For Women International, 13(4), 339-348.

Henderson, J. D., Byrne, D. G., & Duncun-Jones, P. (1981). Neurosis and the Social Environment. New York: Academic Press.

Heller, K., Swindle, R. W. (1983). Social networks, perceived social support, and coping with stress. In R. D. Felner, L. A. Jason, J. N. Moritsigu, & S. S. Faber (Eds.), Preventive Psychology (87-103). Elmsford, N.Y: Pergamon.

Hershman, P. (Ed.). (1981). Punjabi Kinship and Marriage. Delhi: Hindustan Publishing Corporation.

Hinkle, L. E. (1987). Stress and disease: The concept after 50 years. Social Science and Medicine, 25(6), 561-566.

Hirsch, B. J. (1979). Psychological dimensions of social networks: a Multidimensional analysis. American Journal of Community Psychology, 7, 263-277.

House, J. J., & Wells, J. A. (1978). Occupational stress, social support, and Health. Proceedings of a Conference. In A. Mclean, G. Black, & M. Collingan (Eds.). DHEW: (NIOSH) Publication. (78 140), 8-29.

House, J. S., & Kahn, R. L.(1985). Measures and concepts of social support. In S. Cohen & S. L. Syme (Eds.), Social Support and Health (pp. 83-108). NY: Academic Press.

House, J. S., Robbins, C., & Metzner, H. L. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh Community Health Study. American Journal of Epidemiology. 116, 123-140.

Houston, M. (1981). Breast feeding: Success or failure. Journal of Advance Nursing, 6, 447-454.

Israel, B. A. (1983). Social networks and health status: Linking theory, research, and practice. Counsel Health Education, 4, 65-79.

Jacobson, D. E. (1986). Types and timing of social support. Journal of Social Behaviour, 27, 250-264.

Jones, L. M., & Fischer (1978). Studying Egocentric Networks by Mass Survey. Beverly: University of California.

Kagey, J. R., Vivace, J., & Lizt, W. (1981). Mental health primary prevention: The role of parent mutual support groups. Public Health Briefs, 71(2), 166-175.

Kahn, R.L., & Antonucci, T. (1980). Convoys over the life course:Attachment, roles, and social support. In B. P. Baltes & O. G. Brim (Eds.), Lifespan Development and Behaviour (pp. 253-286). NY: Academic Press.

Kaplan, B. H., Cassel, J. C., & Gore, S. (1977). Social support and health. Med Care, 47(5), 47-58.

Keenan, C. K. (1989). Social support network structure and psychological function in adolescent mothers and delayers: A longitudinal study.

Kenneth, H. (1989). The family and the community: mobilizing social support. In C. Gillis., B. L., Highley, B. M. Roberts, & I. M. Martison, (Eds.) (1989). Towards a Same of Family Nursing. New York: Addison-Wesley.

Koeske, G. F., & Koeske, R. D. (1990). The buffering effect of social support on parental stress. American Journal of Orthopsychiatry, 60(3), 440-451.

Krnatz, D. S., Grunberg. N. E., & Baum, A. (1985). Health psychology. Annual Review of Psychology, 36, 349-383.

Kronenberger, W.G. & Thompson R. J. (1992). Psychological adaptation of mothers of children with spinal bifida: Association with dimension of social relationships. Journal of Paediatric Psychology, 17(1), 1-14.

Lantican, L. S. M., & Corona, D. F. (1992). Comparison of social support networks of Filipino and Mexican-American Primigravidas. Health Care For Women International, 13(4), 329-338.

Laryea, M. (1991). Looking back: why nurses fail to be effective culture brokers. Multicultural Health Bulletin, 7(2 & 3), 1-4.

Lazarus, R. S. (1984). Stress, Appraisal, and Coping. New York: Springer Publishing Company. Inc., 330-338.

Leininger, M. M. (1985). Transcultural care diversity and universality: A theory of nursing. In: Fitzpatric & Whall (1989). Conceptual Models of Nursing (2nd ed). Norwalk: Appleton & Lange.

Lenz, E. R., Parks, P. L., Jenkins, S. J., & Jarret, G.E. (1986). Supports as predictors of illness in mothers of 6 months-olds. Research in Nursing and Health 9, 17-24.

Lew, L., & Mattson, S. (1991). Culturally sensitive prenatal care for South east Asians. JOGNN, 21(1), 48-53.

Lin, N., Simeone, R., Ensel, W., & Kuo, W. (1978). Social support, stressful life events, and illness: a model and an empirical test. Journal of Health and Social Behaviour, 20, 108-119.

Lin, N. A., Dean A., (1977). The stress buffering role of social support. Journal of Nervous and Mental Disease, 165(60), 403-417.

Lipson, G. J., & Meleis, A. I. (1989). Methodological issues in research with immigrants. In Morse, J. M. (Ed.), Cross-Cultural Nursing: Anthropological approaches to Nursing Research (pp. 103-115.), New York: Gordon and Breach Science Publishers.

MacElveen, P. (1971). An observational measure of patient morale. In M. Batey (Ed.), Communicating Nursing Research, 9, 132-138.

Majewski, J. L. (1986). Conflicts, satisfactions, and attitudes during the transition to the maternal role. Nursing Research, 35(1), 10-14.

Martin, M. E. & Henry, M. (1989). Cultural relativity and poverty. Public Health Nursing, 6(1), 28-33.

Masi, R. (1988). Multiculturalism, medicine and health. Canada Family Physician, (34), 2173-2178.

Meleis, A. I. (1991). Between two cultures: identity, roles, and health. Health-care for Women International, 12(4), 365-77.

Meleis, A. I., Lipson, J. G., & Paul, S. M. (1992). Ethnicity and health among five Middle Eastern immigrant groups. Nursing Research, 41(2), 98-103.

Mercer, R. T. (1986). First-time Motherhood: Experiences From Teens to Forties. NY: Springer Publishing.

Miller, B. C., & Sollie, D. L. (1980). Normal stresses during the transition to parenthood. Family Relations, 459-465.

Mitchell, R. E., & Trickett E. J. (1980). Social networks as mediators of social support: An analysis of the effects and determinants of social networks. Community Mental Health, 16, 27-44.

Moos, R. H., & Moos, B. S. (1981). Family Environment Scale Manual. Palo Alto, CA: Consulting Psychologist Press.

Muhlenkamp, A. F., & Sayles, J. A. (1986). Self esteem, social support, and positive health practices. Nursing Research, 35(6), 334-338.

Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. (1981). The development of an instrument to measure social support. Nursing Research, 30(5), 264-269.

Norbeck, J. S., Lindsey, A. M., & Carrieri, V.L. (1983). Further development of the Norbeck Social Support Questionnaire: normative data and validity testing. Nursing Research, 32, 4-9.

Norbeck, J. S., & Shener, M. (1982). Sources of social support related to single parent functioning. Research in Nursing and Health, 5, 3-12.

Norbeck, J. S., & Tilden, V. P. (1983). Life stress, social support and emotional disequilibrium in complications of pregnancy: A prospective study. Journal of Health and Social Behaviour, 24, 30-46.

Nuckolls, Cassel, J., & Kaplan, B. H.(1972). Psychosocial assets, life crisis, and the prognosis of pregnancy. American Journal of Epidemiology, 95, 431-441.

O' Hara, M. W. (1986). Social support, life events, and depression during pregnancy and the pregnancy and the puerperium. Arch Gen Psychiatry, 43, 569-573.

Paykel, E. S., Emms E. M., Fletcher J., & Rassaby, E. S. (1980). Life events and social support in puerperal depression. British Journal Psychiatry, 136, 339-346.

Payne, R. L., & Jones (1987). Measurement and methodological issues in social support. In S. V. Kasi & C. L. Cooper. Stress and Health:Issues in Research Methodology (pp. 167-202). Sheffield, U.K.: John Wiley & Sons Ltd.

Pearson, J. (1979). The Psycho-PhysiologicalAdaptation of Migrants: A Review of the literature and suggestion for Study. Unpublished M.S. Thesis. The Pennsylvania State University.

Pearlin, I. I., & Schooler, C. (1978). The Structure of Coping. Journal of Health and Social Behaviour, 19, 2-21.

Posner, N. A., Unterman, R. R., & Williams, K. N. (1985). Postpartum depression: The obstetrician's concerns. In: In Wood D. G. (Ed), Recent Advances in Postpartum Psychiatric Disorders (pp. 60-81). Washington, D.C.: American Postpartum Psychiatric Press, 60-81.

Pridham, K. F. (1987). The meaning for mothers of a new infant: Relationship to maternal experience. Maternal Child Nursing, 16(2), 103-122.

Pridham, K. F., & Zavoral, J. H. (1988). Help for mothers with infant care and household task: perception of support and stress. Public Health Nursing, 5(4), 201-208.

Ratcliffe, W. D., Paul, F. Z., & Hassan, F. A. (1978). Social networks and psychopathology. Unpublished manuscript. University of Alberta.

Reizan, A. I. (1984). Health and illness behaviour of Arab-Americans. Unpublished dissertation, University of California, San Francisco.

Reizan, A. E., & Meleis, A. I. (1987). Symptoms reported by Arab American patients. Western Journal of Nursing Research, 3, 368-384.

Richardson M. S., & Kagan, L. (1979). Social support and the transition to parenthood. Unpublished paper presented at the American Psychological Associated Meeting, New York.

Roberts, S. J. (1988). Social support and help seeking: Review of the literature. Advanced Nursing Science, 10(2), 1-11.

Robert, C. Z. (1974). Self-other orientations and quality of life. Social Indicators Research (301-327). Dordrecht-Holland: D. Reidel Company.

Rock, D. L., Green, K. E., Wise, B. K., & Rock, R.D. (1984). Social support and social network scales: A psychometric review. Research in Nursing and Health, 7, 325-332.

Romito, P. (1989). Unhappiness after childbirth. In: Chalmers, I., Enkin, M., & Keirse, M., Eds., Effective Care in Pregnancy and Childbirth. New York: Oxford University Press. 1433-1466.

Rooks, K. S. (1984). The negative side of social interaction: Impact on psychological well-being. Social Psychology, 46, 1097-1108.

Russel, C. (1974). Transition to parenthood: Problems and gratifications. Journal of Marriage and the Family, 32, 294-301.

Rubin, R. (1984). Maternal Identity and the Maternal Experience. New York: Springer.

Sayles, J. A., & Muhlenkamp, A. F. (1986). Self-Esteem, Social Support, and Positive Health Practices. Nursing Research, 35(6), 334-338.

Scheafer, C., Coyne, J. C., & Lazarus, R. S. (1981). The health-related functions of social support. Journal of Behavioral Medicine, 4, 381-406.

Schilmoeller, G. L., Baranoswki, M. D., & Higgins, B. S. (1991). Long-term support and personal adjustment of adolescent and older mothers. Adolescence, 26(104), 787-797.

Schuler, R. S. (1980). Definitions and conceptualizations of stress in organizations. Organizational Behaviour and Human Performance, 25, 184-215.

Scultz, R., & Rau, M. T. (1985). Social support through the Life Course. In S. Cohen & L. S. Syme (Eds.), Social Support and Health (pp. 129-149). Orlando, Fl: Academic Press.

Seybold, J., Fritz, J., & MacPhee, D. (1991). Relation of social support to the self-perception of mothers with delayed children. Journal of Community Psychology, 19(1), 29-36.

Sheehan, F. (1981). Assessing post partum adjustment. Journal of Obstetric, Gynaecologic, and Neonatal Nursing, 10, 19-23.

Shinn, M., Lehmann, S., & Wong, N. W. (1984). Social interaction and social support. Journal of Social Issues, 49(4), 55-76.

Shumaker, S. A., & Brownell, A. (1985). Toward a theory of social support: Closing the conceptual gaps. Journal of Social Issues, 40(4), 11-36.

Simmons, R. G., Klein, S. D., & Simmons R. L. (1977). Gift of Life: The Social and Psychological Impact of Organ Transplantation. Toronto: John Wiley & Sons.

Sumner, G., & Fritsch, J. (1977). Postnatal concerns: The first six weeks of life. JOGNN: Journal of obstetric, Gynaecologic, and Neonatal Nursing, 6, 27-32.

Singh, G. (1986). Religion and Politics in Punjab. New Delhi: Deep & Deep Publications.

Stegman, R. M., Duncan, K., Pohren, E., & Sandstrom, S. (1985). Quality of life: A patient's perspective. ANNA Journal, 12(4), 244-247.

Stemp, P. S., Turner, R. J., & Noh, S. (1986). Psychological distress in the post partum period: The significance of social support. Journal of Marriage and the Family, 48, 271-277.

Stern, P. N., Tilden, V. P., & Maxwell, E. K.(1986). Culturally induced stress during childbearing: The Filipino-american experience. In P. N. Stern, (Ed.), Women Health and Culture (pp. 105-121). Washington DC: Hemisphere Publishing Corporation.

Suchman, E. A., Phillips, B. S., & Streib. G. F. Questionnaire. Social Forces, 36, 233-232.

Tardy, C. H. (1985). Social support measurements. American Journal of Community Psychology, 13(2), 187-196.

Thoits, P. A. (1982). Conceptual, metrological, and theoretical problems in studying social support as a buffer against stress. Journal of Health and Social Behaviour, 23, 145-149.

Thoits, P. A. (1983). Life stress, social support, and psychological well-being: A reformulation and test of the social isolation hypothesis. American Sociological Review, 48, 174-187.

Thompson, P. R., Sanghera, H., & Mroke, M. (1986). O.A.S.I.S. Health Education For Immigrant Women: A Manual and Resource Guide. Vancouver: Orientation Adjustment Services For Immigrants Society.

Tilden, V. P., & Gaylen, R. D. (1987). Cost and conflict: The darker side of social support. Western Journal of Nursing Research, 9(1), 9-18.

Tulman, L., & Fawcette, J. (1991). Recovery from childbirth: Looking back 6 months after delivery. Health Care of Women International, 12, 341-350.

Turner, R. J., & Noh, S. (1983). Class and psychosocial vulnerability among women: The significance of social support and personal control. Journal of Health and Social Behaviour, 24, 2-15.

Turner, R. J. (1983). Direct, indirect and moderating effects of social support upon psychological distress and associated conditions. In H. B. Kuplan (Ed.), Psychological Stress: Trends and Theory of Research (pp 105-155). New York: Academic Press.

Turner, R. J. (1981). Social support as a contingency psychological well-being. Journal of Health and Social Behaviour, 22, 357-367.

Unterman, R. R., Posner, A. N., & Williams, K. N. (1990). Postpartum depressive disorders: changing trends. Birth, 17(3), 131-137.

Van Harrison, R. (1985). The person-environment fit model and the study of stress. In Beehr & Bhagat (Eds.), Human Stress in Organizations (pp. 213-241). New York: John Willey and Sons.

Vaux, A., Burda, P., & Stewart, D. (1986). Orientation toward utilization of support resources. Journal of Community Psychology, 14, 159-170.

Vaux, A. (1985). Variations in social support associated within gender, ethnicity, and age. Journal of Social Issues, 41, 119-110.

Viel, H. (1985). Dimensions of social support: A conceptual framework for research. Social Psychiatry, 20, 156-162.

Walker, K. N., McBride, A., Vachon M. L. S. (1977). Social support networks and the crises of bereavement. Social Science Medicine, 11, 35-41.

Walker, L. O. (1989a). Stress process among mothers of infants: preliminary model testing. Nursing Research, 38(1), 10-16.

Walker, L. O. (1989b). A longitudinal analysis of stress process among mothers of infants. Nursing Research, 38(6), 339-343.

Walker, L. O. (1992). The paradigm of stress, coping, and social support. Parent Infant Nursing Science Paradigms, Phenomena Methods. Philadelphia: Davis.

Wandersman, L. (1980). Social system and the transition to Parenthood. Journal of Psychology, 8, 332-342.

Wells, J. A. (1982). Objective job condition, social support, and perceived stress among blue collar workers. Journal of Occupational Behaviour, 3, 79-94.

Wethington, E., Kessler, (1986). Perceived support, received support, and adjustment to stressful life events. Journal of Health and Social Behaviour, 27, 78-89.

Wheaton, B. (1985). Models for the stress Buffering Functions of coping resources. Journal of Health and Social Behaviour, 26, 352-364.

Wilcox, B. L. (1981). Social support and life stress, and psychological adjustment: A test of the buffering hypothesis. American Journal of Community Psychology, 9, 583-591.

Wills, T. A. (1985). Supportive functions of interpersonal relationship. In Cohen & S. L. Syme (Eds.), Social Support and Health (pp.61-82). Orlando, Florida: Academic Press.

Wills, T. A. & Langher, T. S. (1980). Socio-economic status and stress. In I. L. Kutash & L. B. Schesinger (Eds.), Handbook on Stress and Anxiety (pp. 159-173), San Francisco: Jossey-Bass.

Zautra, A. (1979). Quality of life indicators: A review of the literature. Community Mental Health Review, 4(1), 2-10.

APPENDIX A

SIKH FEDERATION OF EDMONTON
P.O. Box 11897, Station 'M', Edmonton, Alberta T5J 3L1
Fax.& Tel.: (403) ~~450-2020~~ 430-8693

To Whom It May Concern

This is to confirm that Ms. Theresa Nankpi a master of Nursing student at the University of Alberta has contacted me and other Presidents of Gurdwaras in Millwoods. She has expressed her desire to study the help Punjabi Sikh women received after their childbirth.

She has discussed the nature of the study and the benefits of the study to the Sikh community. I am sure that there is no risk anticipated.

I fully consent to let Ms. Theresa Nankpi proceed on this project without any further delay.

Sincerely,

Kulmit S. Sangha
(President)

July 08, 93.

University of Alberta
Edmonton
Canada T6G 2G3

Faculty of Nursing
3rd Floor Clinical Sciences Building

Certification of Ethical Acceptability for Research Involving Human Subjects

---

NAME OF APPLICANT(S):	**Theresa Nankpi, MN Candidate**
TITLE OF PROJECT:	**"Perception of Social Support Among Immigrant Punjabi Sikh Mothers"**

The members of the review committee, having examined the application for the above-named project, consider the procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

August 16, 1993
Date

Linda Reutter
L. Reutter, RN, PhD
Acting Chair
Ethics Review Committee

The Ethics Review Committee is a Joint Committee of
The Faculty of Nursing, University of Alberta
and
The Nursing Division, University of Alberta Hospitals

APPENDIX C

COVER LETTER

Dear Sikh Punjabi Mothers,

My name is Theresa Nankpi. I am a Master of Nursing candidate at the University of Alberta in the process of doing my thesis research. This study is required for me to complete my work for a Master of Nursing Degree. My research concerns the help Punjabi immigrant mothers receive during the first year after childbirth. Little has been written on the relationship of health of immigrant mothers and their perception of social support.

The study consists of answering three sets of questions. You will be asked to answer questions that are of a personal nature. The questions deal with issues related to your source of help, your satisfaction with the help provided, your need for help, and your perception of your health status.

If you agree to be in my study, I will come to your home to interview you. Before the interview starts you will be asked to sign a written consent form approved by Faculty of Nursing Ethics Review Committee attesting to the fact that you are not forced to participate in the study. The interview should take about one and one-half hours. I hope you are willing to be in my study. If you are, you may phone me. My phone number is at the bottom of this letter. Once I hear from you, I will answer any questions you may have.

There is no direct benefit to you to take part in this study. The results of this study may help nurses to identify the people in an immigrant Punjabi Sikh family who are seen as being of most help to women after childbirth. The study will also help nurses to know the type of help Punjabi Sikh women see as being of most support. This may help to improve the care that nurses give to Punjabi Sikh mothers after childbirth. There is no expected harm to you in taking part in this study.

Your decision to participate in this study is voluntary. Even if you decide to participate, you may still withdraw at any time. You may refuse to answer any questions and you may stop the interview at any time. Your decision to participate or not will in no way affect your health care.

All the interview data will be kept in a locked file cabinet for seven years. If the interviews are to be used for another study, permission will be sought from an ethical review committee. Your name will never be connected with this study in any way. Information from this study may be presented at nursing conferences or may be published in nursing journals. If so, your name will not appear anywhere. If you have any concerns or questions about the study, you can call me at any time.

If you agree to be in my study, please call me at my telephone number below. Thank you for considering being part of this study.

Sincerely,

Theresa S. Nankpi
MN Candidate
4811 - 22 Avenue
Edmonton, Alberta T6L 2W8

Telephone: 490-1544

APPENDIX D

INFORMED CONSENT

Project Title: Perception of Social Support among Sikh Punjabi Mothers in Edmonton

Principal Investigator: Theresa S. Nankpi, MN Candidate, telephone 490-1544.

CONSENT FORM

I, the undersigned, have read and understood the description of the procedures of the above study and agree to participate in the study. My questions have been answered to my satisfaction and I understand that Ms. Nankpi may answer any questions that I may have in the future. I understand that the typed copies of the interview will be kept by the researcher in a locked drawer for up to seven years after this study has finished. I agree and give my permission for the researcher to keep the typed copies of the interviews for seven years and that they may be used for research and educational reasons in the future, provided the researcher seeks further approval from the proper ethical review committees. I also understand that while it is estimated that any interview will last about one and one-half hours, I am free to end any interview at any time. I understand that I do not have to respond to any question asked if I do not wish to do so and I am assured of anonymity. Although any information and findings of this study may be published, my name will not be identified with the publication. I also understand that I can withdraw from the study without being denied health services. I further understand that if I am required to provide more information later on, I will be informed. I am retaining a copy of this consent form. There may be no direct benefits to me by taking part in this study. I have been given the opportunity to ask questions about the study and they have been answered to my satisfaction.

______________________________ ____________
(Signature of Participant) (Date)

______________________________ ____________
(Signature of Principal Investigator) (Date)

If you wish to receive a summary of the study when it is finished, please complete the next section:

Name: ______________________________
Address: ______________________________

APPENDIX E

Arizona Social Support Interview Schedule
Revised by Researcher

(Read to the subject)

I would like to get an idea of the people who are important to you in a number of different ways. I will be reading descriptions of ways that people are often important to us. After I read each description, I will be asking you to give me the first names, initials, or nicknames of people who fit the description. These people might be friends, family members, teachers, priests, ministers, doctors, or other people you might know.

If you have any questions about the descriptions after I have read each one, please ask me to try to clarify them.

A. Intimate Interaction

A1. If you wanted to talk to someone about the changes in your life since becoming a parent, who would you talk to? Give me the first names, initials, or nickname of people who you would talk to about things that are very personal and private.

(If the subject is unable to name a single person, go to A4.)

(If the subject names one or more people, probe for any additional names by asking: Is there anyone else you can think of?)

A2. Since the birth of this baby, which of these people did you actually talk to about the changes in your life since becoming a parent?

(Check for people who were listed in response to A1, but who were not listed in response to A2.)

A3. How would you rate your satisfaction or dissatisfaction with the times you talked to people about the changes in your life since becoming a parent?

Look at this card (show satisfaction card) and tell me which number best describes your rating. (Call out a number from 1-7 and record response on answer sheet.)

1. Very dissatisfied
2. Moderately dissatisfied
3. Slightly dissatisfied
4. Neither satisfied nor dissatisfied
5. Slightly satisfied
6. Moderately satisfied
7. Very satisfied

A4. Since the birth of this baby, how much do you think you needed people to talk to about the changes in your life since becoming a parent?

Look at this card and tell me which number best describes your need (Show need card and record response on the answer sheet).

1. No need at all
2. Slight need
3. Moderate need
4. Great need
5. Very great need

B. Material Aid

B1. If you needed to borrow $25, for something valuable, who are the people you would lend or give you $25 or more, who would lend or give you something (a physical object) that was valuable?

You can name some of the people you named before if they fit this description, too, or you can name some other people.

(If the subject is unable to name a single person go to B4.)

(If the subject names one or more people, probe for any additional names by asking: Is there anyone else you can think of?)

B2. Since the birth of this child, which of these people actually loaned or gave you money over $25, or gave you or loaned you some valuable object that you needed?

(Check for people who were listed in response to B1, but who were not listed in response to B2.)

B3. During the past twelve months, how satisfied or dissatisfied were you with the things that people loaned or gave?

Look at this card (show satisfaction card) and tell me which number best describes your rating. (Call out a number from 1-7 and record response on answer sheet.)

1. Very dissatisfied
2. Moderately dissatisfied
3. Slightly dissatisfied
4. Neither satisfied nor dissatisfied
5. Slightly satisfied
6. Moderately Satisfied
7. Very satisfied

B4. Since the birth of this baby, how much do you need people who could lend or give you things that you need?

(Show need card, record response on score sheet.)

1. No need at all
2. Slight need
3. Moderate need
4. Great need
5. Very great need

C. Advice

C1. Who would you go to if you have concerns about the care of your baby when you needed some advice? Remember, you can name some of the same people that you mentioned before, or you can name some new people.

(If the subject is unable to name a single person, go to C4.)

(If the subject names one or more people, probe for any additional names by asking: Is there anyone else who you can think of?)

C2. During the past twelve months, which of these people actually gave you some important advice?

(Check for people who were listed in response to C1, but who were not listed in response to C2.)

C3. Since the birth of this baby, how satisfied or dissatisfied were you with the advice that you were given?

Look at this card (show satisfaction card) and tell me which number best describes your rating. (Call out a number from 1-7 and record response on answer sheet.)

1. Very dissatisfied
2. Moderately dissatisfied
3. Slightly dissatisfied
4. Neither satisfied nor dissatisfied
5. Slightly satisfied
6. Moderately satisfied
7. Very satisfied

C4. Since the birth of this baby, how much do you think you needed to get advice on concerns about the care of your baby?

(Show need card, record response on score sheet.)

1. No need at all
2. Slight need
3. Moderate need
4. Great need
5. Very great need

D. Positive Feedback

D1. Who are the people that you would expect to let you know that they like your ideas of how you care for your baby and your baby's growth, development, and behaviour?

(If the subject is unable to name a single person, go to D4.)

(If the subject name one or more people, probe for any additional names by asking: Is there anyone else who you can think of?)

D2. Since the birth of this baby, which of these people actually let you know that they liked your ideas of how you cared for your baby and about your baby's growth, development, and behaviour?

(Check for people who were listed in response to D1, but who were not listed in response to D2.)

D3. Since the birth of this baby, how satisfied or dissatisfied were you with the times that people told you that they liked your ideas of how you cared for your baby and positive aspects about your baby's growth, development ,and behaviour.

Look at this card (show satisfaction card) and tell me which number best describes your rating. (Call out a number from 1-7 and record response on answer sheet.)

1. Very dissatisfied
2. Moderately dissatisfied
3. Slightly dissatisfied
4. Neither satisfied nor dissatisfied
5. Slightly satisfied
6. Moderately satisfied
7. Very satisfied

D4. Since the birth of this baby, how much do you think you needed to have people let you know when they liked your ideas of how you cared for your baby and let you know the positive aspects of your baby's growth, development, and behaviour?

(Show need card, record response on score sheet.)

1. No need at all
2. Slight need
3. Moderate need
4. Great need
5. Very great need

E. Physical Assistance

E1. Who are the people who you could call to give up some of their time and energy to help you take care of your baby, for example, by watching your baby so that you can run an errand, or driving you to the hospital or some place you needed to go; helping you do some work around the house; going to the store for you, and things like that? Remember, you might have listed these people before or they could be new names.

(If the subject is unable to name a single person, go to E4.)

(If the subject names one or more people, probe for any additional names by asking: Is there anyone else you can think about?)

E2. Since the birth of this baby, which of these people actually pitched in to help you do things that you needed some help with?

(Check for people who were listed in response to E1 but who were not listed in response to E2.)

E3. Since the birth of this baby, how satisfied or dissatisfied were you with the help you received in doing these things that you needed to do?

Look at this card (show satisfaction card) and tell me which number best describes your rating. (Call out a number from 1-7 and record response on answer sheet.)

1. Very dissatisfied
2. Moderately dissatisfied
3. Slightly dissatisfied
4. Neither satisfied nor dissatisfied
5. Slightly satisfied
6. Moderately satisfied
7. Very satisfied

E4. Since the birth of this baby, how much do you think you needed to have people could give up some of their time and energy to help you take care of your baby, so that you can run an errand, or driving you to the hospital or some place you needed to go; helping you do some work around the house, going to the store for you, and things like that?

(Show need card, record response on score sheet.)

1. No need at all
2. Slight need
3. Moderate need
4. Great need
5. Very great need

F. Social Participation

F1. Who are the people you get together with to have fun or to relax? These could be new names or ones you listed before.

(If the subject is unable to name a single person, go to F4.)

(If the subject names one or more people, probe for any additional names by asking: Is there anyone else who you can think about?)

F2. Since the birth of this baby, which of these people did you actually get together with to have fun or to relax?

(Check for people who were listed in response to F1 but who were not listed in response to F2.)

F3. Since the birth of your baby, how satisfied or dissatisfied were you with the times that you got together with people just to have fun and relax?

Look at this card (show satisfaction card) and tell me which number best describes your rating. (Call out a number from 1-7 and record response on answer sheet.)

1. Very dissatisfied
2. Moderately dissatisfied
3. Slightly dissatisfied
4. Moderately satisfied
5. Slightly satisfied
6. Moderately satisfied
7. Very satisfied

F4. How much do you think that you needed to get together with other people for fun and to relax since the birth of this baby? (Show need card, record response on score sheet.)

1. No need at all
2. Slight need
3. Moderate need
4. Great need
5. Very great need

G. Negative Interactions

G1. Who are the people you expect to criticize your ideas of how to best parent your baby and expect too much of you; or who can you expect to make you angry and upset? These could be new names or names you listed before.

(If no one is identified, go to H.)

G2. Since the birth of this baby, which of these people have actually criticized your ideas of how to best parent your baby and expect too much of you, or have actually made you angry and upset?

(Check for who were listed in response to G1 but who were not listed in response to G2.)

H. Personal Characteristics of Network Members

Now I would like to get some information about the people you have just listed. (For each person on the list) could you tell me:

Ha. What is the person's relationship with you?
Hb. How old is this person?
Hc. What is the person's sex?
Hd. What is the person's ethnicity?

APPENDIX F

Network Answer Sheet

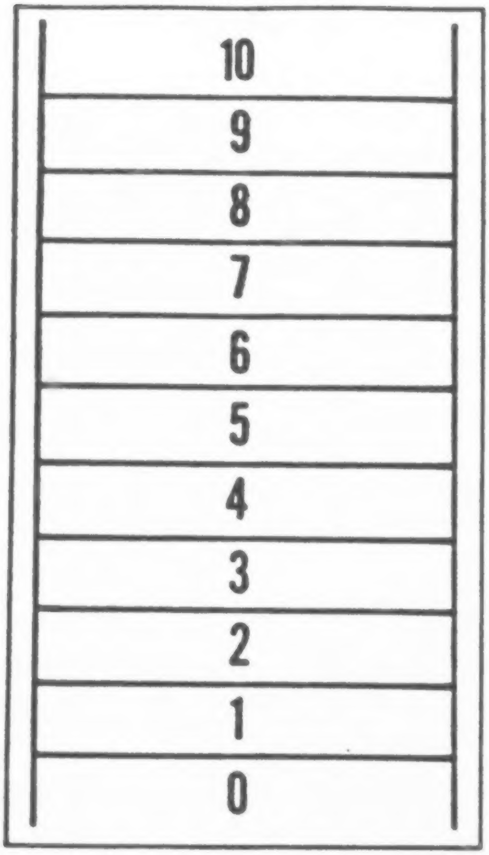
Participant #: ____________ **Date:** ____________ **Interviewer:** ____________

ARIZONA SOCIAL SUPPORT INTERVIEW SCHEDULE

	A		B		C		D		E		F		G		REL	Age	Sx	Eth	
Network Members																			
1.																			
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			
11.																			
12.																			
13.																			
14.																			
15.																			
Totals																			
	3.____		3.____		3.____		3.____		3.____		3.____								
	4.____		4.____		4.____		4.____		4.____		4.____								

APPENDIX G

Cantril's Ladder



APPENDIX H

Personal Data Interview Schedule

The information gathered in this interview will remain confidential. It will be utilized only to analyze the total study data. Please it is important that you respond to all of the questions.

Demographic Data

(1) When were you born?	Year of Birth Date Month
(3) When did you come to Canada?	Year of immigration
(4) Did you live somewhere else before you came to Edmonton?	Yes No
(5) If Yes, where was that?	

Household Composition

(6) When you were in your home country with whom did you live in your home?	
(7) With whom do you live in Edmonton?	
(8) If your household is different from that in your home country, does that bother you?	Yes No
(9) Is your mother living?	Yes No
(10) Is your father living?	Yes No
(11) Where are your mother and father living now?	
(12) How far do your mother and father live from you?	

Marital Status and Marriage

(13) Were you married in Canada?	Yes No
(14) Was the marriage arranged?	Yes No
(15) How long have you been married?	Number of years

Obstetrical History

(16) How many times have you been pregnant?	
(17) Did you find it difficult to get pregnant?	Yes No
(18) Did you have problems with any of your previous pregnancies?	Yes No
(19) If yes, which one?	
(20) What are the sexes of your children?	Male Female
(21) Was it more important to have a boy or a girl?	Boy Girl
(22) For whom was it important?	Self Spouse Parents-in-laws
(23) When was this baby born?	Age in months
(24) What is your highest level of education?	Less than 8th grade 12th grade High school diploma Some college Some university Bachelor's degree Special diploma Masters degree Doctorate degree
(25) Are you presently working?	Yes No
(26) If you work, do you work full time or part-time?	Full time Part time Number of hours/week

(27) If you are working, what is your approximate salary?

If part time, $ per hour?
If full time, what is your annual income?

(28) If your spouse is working, what is your approximate household income?

APPENDIX I

Arizona State University

Department of Psychology
Tempe, Arizona 85287-1104
602/965-3326
FAX: 602/965-8544

November 9, 1992

Theresa S. Kpinpuo
3-120 Clinical Sciences Bldg.
Faculty of Nursing
University of Alberta
Edmonton, Alberta T6E 2G3
CANADA

Dear Ms. Kpinpuo:

You have my permission to use the Arizona Social Support Interview Schedule (ASSIS) in your research. This instrument is in the public domain. It can be used freely in research, revised as you and your committee see fit, and reproduced. Please feel free to make wording changes or translations that are appropriate for conducting your research. Obviously, professional standards for using assessment instruments and for citing previous literature should be followed.

I have enclosed two obscure but relevant reprints for your use. Best wishes to you in your research.

Sincerely,

Manuel Barrera Jr.

Manuel Barrera, Jr., Ph.D.
Professor of Psychology